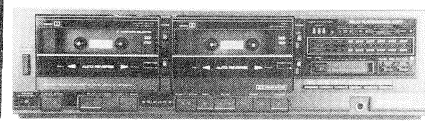
PIONEER

Service Manual

REPAIR & ADJUSTMENTS



ORDER NO.
ARP1028-0

STEREO DOUBLE CASSETTE TAPE DECK

CT-1270WR(BK)

MODEL CT-1270WR (BK) COMES IN SIX VERSIONS DISTINGUISHED AS FOLLOWS:

Type	Power requirement	Destination
KU	AC120V only	U.S.A. model
KC	AC120V only	Canada model
HEM	AC220V, 240V (switchable)	European continent model
HB	AC220V, 240V (switchable)	United Kingdom model
D	AC120V, 220V, 240V (switchable)	General export model
D/G	AC120V, 220V, 240V (switchable)	U.S. Military model

- This service manual is applicable to the KU type.
- As to the KC, HEM and HB types, please refer to the additional service manual (ARP1029).
- As to the circuit and mechanism descriptions, please refer to the CT1270WR (BK) service manual (ARP1027).
- As to the D and D/G types, please refer to the additional service manual (ARP1030).
- Ce manuel d'instruction se refère au mode de réglage, en français.
- Este manual de servicio trata del método ajuste escrito en español.

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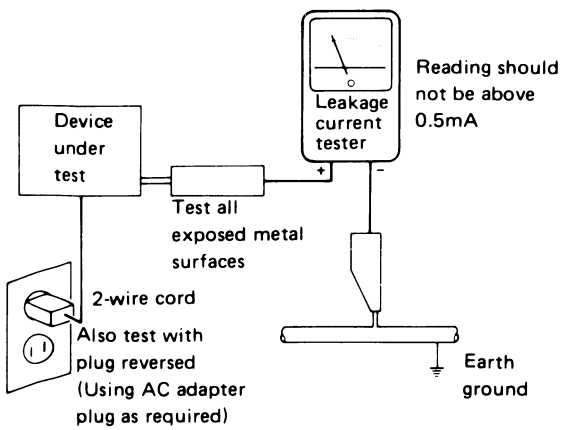
1. SAFETY INFORMATION

1. SAFETY PRECAUTIONS

The following check should be performed for the continued protection of the customer and service technician.

LEAKAGE CURRENT CHECK

Measure leakage current to a known earth ground (water pipe, conduit, etc.) by connecting a leakage current tester such as Simpson Model 229-2 or equivalent between the earth ground and all exposed metal parts of the appliance (input/output terminals, screwheads, metal overlays, control shaft, etc.). Plug the AC line cord of the appliance directly into a 120V AC 60Hz outlet and turn the AC power switch on. Any current measured must not exceed 0.5mA.


Reading should not be above 0.5mA
Leakage current tester
Device under test
Test all exposed metal surfaces
2-wire cord
Also test with plug reversed (Using AC adapter plug as required)
Earth ground

AC Leakage Test

ANY MEASUREMENTS NOT WITHIN THE LIMITS OUTLINED ABOVE ARE INDICATIVE OF A POTENTIAL SHOCK HAZARD AND MUST BE CORRECTED BEFORE RETURNING THE APPLIANCE TO THE CUSTOMER.

2. PRODUCT SAFETY NOTICE

Many electrical and mechanical parts in the appliance have special safety related characteristics. These are often not evident from visual inspection nor the protection afforded by them necessarily can be obtained by using replacement components rated for voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in this Service Manual.

Electrical components having such features are identified by marking with a ⚠ on the schematics and on the parts list in this Service Manual.

The use of a substitute replacement component which dose not have the same safety characteristics as the PIONEER recommended replacement one, shown in the parts list in this Service Manual, may create shock, fire, or other hazards.

Product Safety is continuously under review and new instructions are issued from time to time. For the latest information, always consult the current PIONEER Service Manual. A subscription to, or additional copies of, PIONEER Service Manual may be obtained at a nominal charge from PIONEER.

2. SPECIFICATIONS

Systems ..... 4 track, 2-channel stereo
Heads ..... "Hard Permalloy" recording/playback head x 1
"Hard Permalloy" playback head x 1
"Ferrite" erasing head x 1
Motor ..... DC servo capstan motor x 2
Wow and Flutter ..... No more than 0.07% (WRMS)
No more than ± 0.19% (DIN)
Fast winding Time ..... Approximately 110 seconds
(C-60 tape)
Frequency Response
−20 dB recording:
Normal tape ..... 20 to 15,000 Hz
Chrome tape ..... 20 to 15,500 Hz
Metal tape ..... 20 to 16,000 Hz
0 dB recording:
Normal tape ..... 20 to 10,000 Hz
Chrome tape ..... 20 to 11,000 Hz
Metal tape ..... 20 to 15,000 Hz
Signal-to-Noise Ratio
Dolby NR OFF ..... More than 57 dB
Noise Reduction Effect
Dolby NR B type ON ..... More than 10 dB (at 5 kHz)
Dolby NR C type ON ..... More than 19 dB (at 5 kHz)
Harmonic Distortion ..... No more than 0.7% (0 dB)
Input (Sensitivity)
LINE (INPUT) ..... 70 mV (Input impedance 100 kΩ)
Output (Reference level)
LINE (OUTPUT) ..... 316 mV (Output impedance 3.9 kΩ)
HEADPHONES ..... 45 mV (Load impedance 8 Ω)

Subfunctions

- Relay playback (Deck I ⇄ Deck II)
- Synchronized copy start
- High-speed and normal-speed tape copying (Deck I → Deck II)
- Dolby NR B/C types
- Auto tape selector (Deck I)
- 5 segments/channel LED level meter
- Music Scan (Cue and Review) (Deck I)
- Full automatic stop function
- Timer stand-by function
(Unattended recording: Deck II)
(Wake-up playback: Deck I and Deck II)
- One-Touch recording
- 3-digit mechanical tape counter

Miscellaneous

Power Requirements
U.S., Canadian models ..... AC 120 V, 60 Hz
European model ..... AC 220 V, 50/60 Hz
U.K. model ..... AC 240 V, 50/60 Hz
U.S. military, other destination models
..... AC 120 V/220 V/240 V, 50/60 Hz (switchable)
Power Consumption
U.S., Canadian models ..... 18 W
European, U.K. models ..... 21 W
U.S. military, other destination models ..... 16 W
Dimensions ..... 420 (W) x 115 (H) x 262 (D) mm
16-9/16 (W) x 4-1/2 (H) x 10-5/16 (D) in
Weight (without package) ..... 5 kg (11 lb)

Accessories

Operating instructions 1
Connection cord with pin plugs 2

NOTE:
Specifications and design subject to possible modifications without notice due to improvements.

3. FRONT PANEL FACILITIES

POWER switch

NOTE:
The unit's POWER switch is designed to select the transformer's secondary and so even at the STAND-BY position, the unit's circuitry will work as long as the power cord is connected to power outlet. Disconnect the power cord from the power outlet when you do not plan to use the unit for a long period of time.

Deck I Reverse MODE switch

(⇄) position

Set to this position to play back both sides of the cassette. When the tape reaches the end during playback in the FWD direction, the deck will automatically reverse directions and playback the other side of the cassette. When the tape reaches the end in the REV direction, the deck will stop automatically. Start playback from the FWD direction to play back both sides of the tape automatically.

(⇄) position

Set to this position to play back both sides of the tape continuously.

Deck II Reverse MODE switch

(⇄) position

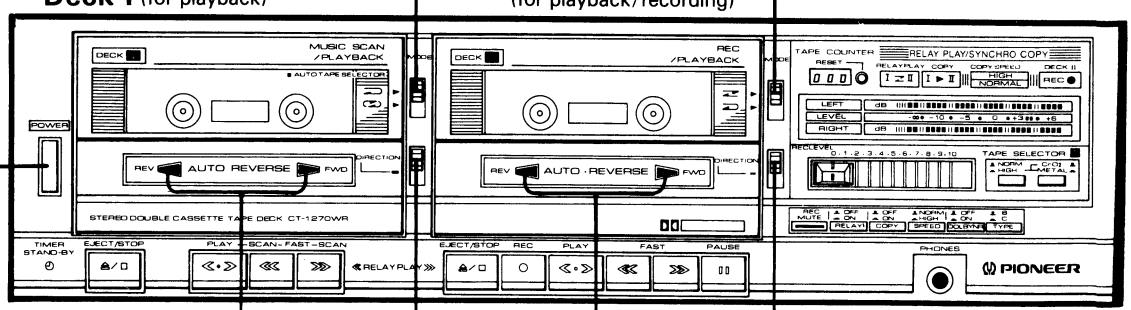
Set to this position for playback or recording of only one side of the cassette. The deck will stop automatically when the tape reaches the end.

(⇄) position

Set to this position for playback or recording of both sides of the cassette. When the tape reaches the end during playback (or recording) in the FWD direction, the deck will automatically reverse directions and play back (or record) the other side of the cassette. When the tape reaches the end in the REV direction, the deck will stop automatically. Playback (or recording) must be started from the FWD direction in order for the auto-reverse function to work.

Deck I (for playback)

Deck II
(for playback/recording)



Deck I Tape direction indicators

Indicate direction of tape playback.
FWD: Side A (visible side) playback
REV : Side B (side not visible) playback

Deck II DIRECTION lever

Use to change the playback/recording direction of Deck II. Each time this lever is pushed down the playback/ recording direction will be changed. (This lever cannot be locked.)

Deck I DIRECTION lever

Use to change the playback direction of Deck I. Each time this lever is pushed down the playback direction will be changed. (This lever can not be locked.)

Deck II tape direction indicators

Show direction of tape playback or recording
FWD: Side A (visible side) playback/recording
REV : Side B (side not visible) playback/recording

REC LEVEL control

Tape COPY switch (OFF/ON)

Press for tape copying. This switch should always be in the OFF (■) position when not copying tapes. If the COPY switch is set to the ON (■) position, it will not be possible to record signals from the LINE INPUT terminals. Also, when the COPY switch is in the ON (■) position, Deck I will not operate unless Deck II is in the REC or REC/PAUSE mode.

RELAY play switch (OFF/ON)

When the RELAY play switch is in the ON (■) position, relay play can be performed between Deck I and Deck II.
When the RELAY play switch is in the ON (■) position, if the PLAY button of either deck or the REC button (Deck II only) is pressed, the PLAY, FF, and REW buttons of the other deck will not function.

Deck II REC MUTE button

During recording on Deck II, the input signal will be cut while this button is held depressed, creating a blank interval on the tape.

COPY SPEED switch (NORM/HIGH)

HIGH (■): When the unit is in the tape copy mode, pressing this switch will cause high speed copying to take place.

NORM (■) Tapes are copied at the normal speed.

LEVEL meter

Deck II REC indicator

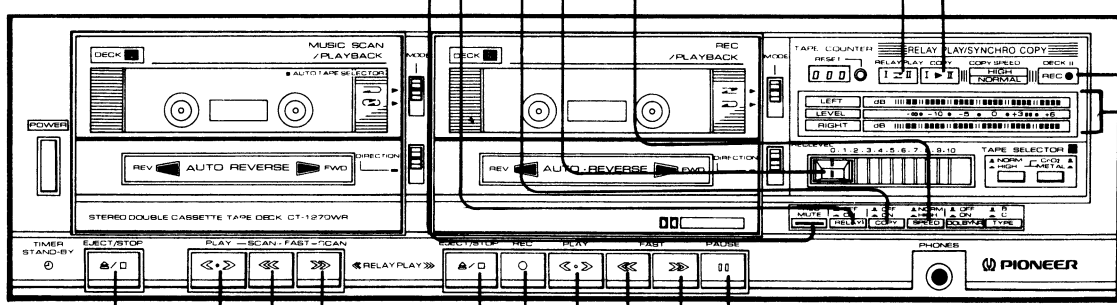
Lights when Deck II is in the record mode.

COPY indicator

Lights when Deck I and Deck II are in the tape copy mode.

RELAY PLAY indicator

Lights when Deck I and Deck II are in the relay play mode.



Deck I PLAY button

Playback on Deck I starts when this button is pressed. Playback direction is shown by the Deck I tape direction indicators (FWD or REV).

Deck I FAST/SCAN buttons

When one of these buttons is pressed, the tape in Deck I is wound rapidly in the direction shown by the arrow above the button pressed. When pressed during playback, the tape will be played back rapidly. This allows you to cue or review the tape to locate a desired position.

Deck I EJECT/STOP button

The cassette compartment door will open when this button is pressed while the tape is stopped. Pressing it while the tape is running will stop the tape.

Deck II EJECT/STOP button

The cassette compartment door will open when this button is pressed while the tape is stopped. Pressing it while the tape is running will stop the tape.

Deck II PAUSE button

Tape travel will be stopped temporarily during recording or playback on Deck II when this button is pressed.

Deck II FAST buttons

When one of these buttons is pressed, the tape will be wound rapidly in the direction of the arrow above the button pressed.

Deck II PLAY button

Playback on Deck II starts when this button is pressed. Playback direction is shown by the Deck II tape direction indicators (FWD or REV).

Deck II REC button

When the REC button is pressed, the PLAY button will also be engaged automatically and recording on Deck II will start. It will not be possible to depress this button if the accidental erasure prevention tabs on the cassette have been removed, or if the tape is not loaded properly. Never try to force it.

TAPE SELECTOR Ⅱ switches

The selectors allow the blas and equalization characteristics during recording, and equalization characteristics during playback, to be selected on Deck II in accord with the type of tape used.

Normal tape:
Release the left-hand switch to the "out" position (■ NORM).

CrO_2 tape:
Press the left-hand switch and set it to the "in" position (■ HIGH) and rease the right-hand switch to the "out" position (■ CrO_2).

Metal tape:
Press both the left and right-hand switches to the "in" position (■ HIGH, ■ METAL).

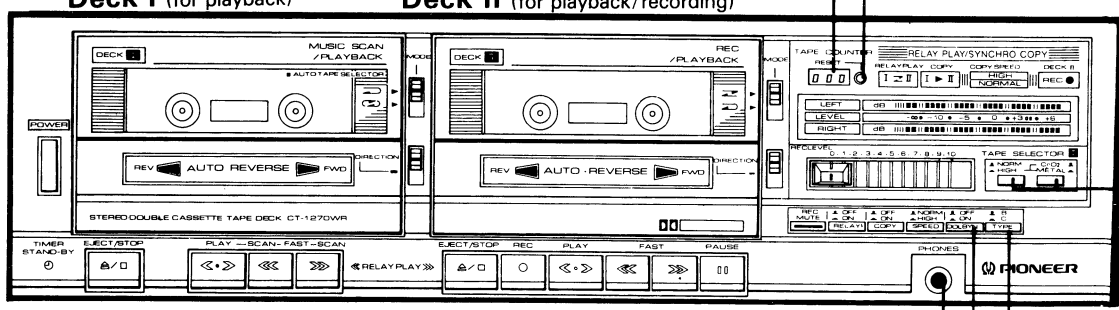
NOTE:
Deck I is provided with an automatic tape selector mechanism.

Tape counter RESET button

Deck II TAPE COUNTER

Three-digit counter indicates the current position on the tape in Deck II.

Deck I (for playback) **Deck II** (for playback/recording)



PHONES jack

DOLBY B-C NR switches

Make sure that the switch is set to the same setting when playing back tapes recorded with the Dolby B or C type noise reduction system.

Dolby NR OFF:
Release the left-hand switch to the "out" position (■ OFF).

Dolby B-type NR ON:
Press the left-hand switch and set it to the "in" position(■ ON) and release the right-hand switch to the "out" position (■ B).

Dobly C-type NR ON:
Press the left and right-hand switches to the "in" position (■ ON, ■ C).

- Noise reduction manufactured under license from Dolby Laboratories Licensing Corporation.
- "Dolby" and the double-D symbol are trademarks of Dolby Laboratories Licensing Corporation.

4. DISASSEMBLY

4.1 Removal of the Bonnet.

1. Remove the three screws ❶ and remove the bonnet.

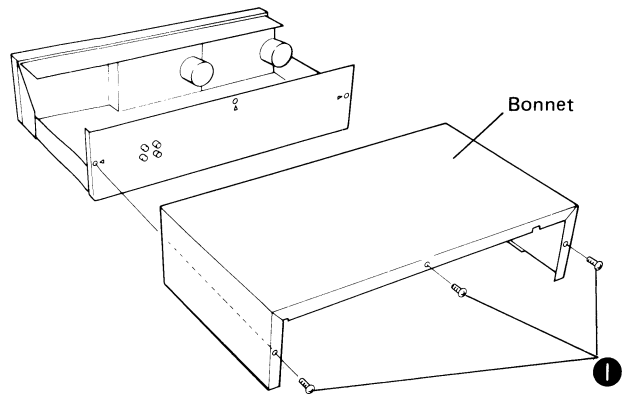


Fig. 4-1 Removal of the bonnet

4.2 Removal of the Mechanical Unit

1. Remove the three screws ❷ and take off the top plate.

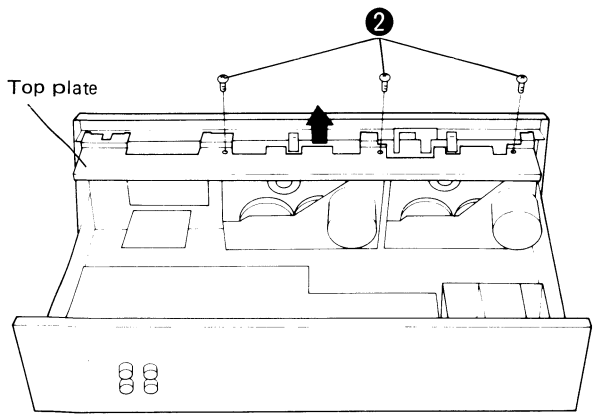


Fig. 4-2 Removal of the top plate.

2. Remove the switch lever and SW connector spring from DECK 2 (RYM-203).

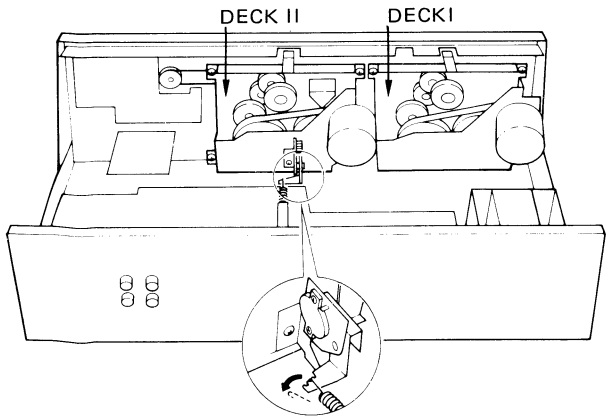


Fig. 4-3 Removal of the SW connector spring

3. Remove the 5 screws ❸ and take off the front panel.

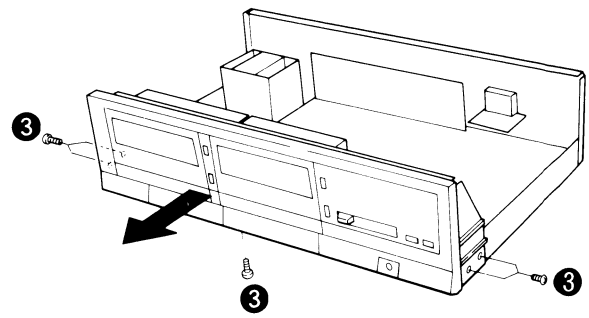


Fig. 4-4 Removal of the front panel

4. Pass the counter belt from the counter around a boss in DECK 2. Remove the eight screws ❹ .
   If there is difficulty in removing screws, first take off the connector and remove the front panel.

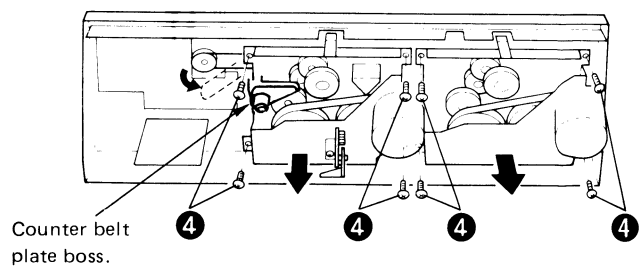


Fig. 4-5 Removal of the mechanical unit

4.3 Belt Replacement Procedure.

1. First remove the mechanical unit from the main body. (See 4-2 for removal of the mechanical unit).
2. Remove the angular belt (FR belt) from the machanical unit.
3. Remove the single screw ❺ . Remove the REC SW bracket. (DECK 2 (RYM-203) only).

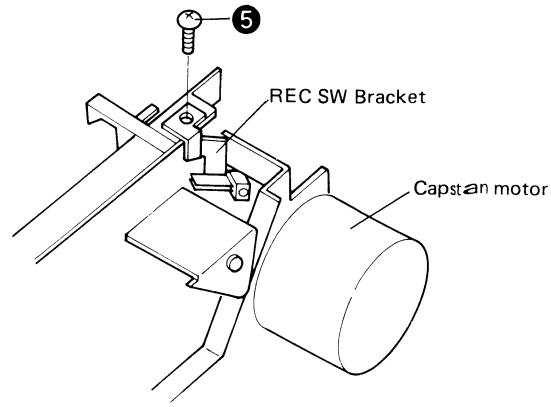


Fig. 4-6 Removal of the REC SW Bracket

4. Remove the 3 side screws ❻ . Remove the motor bracket from the mechanical chassis.

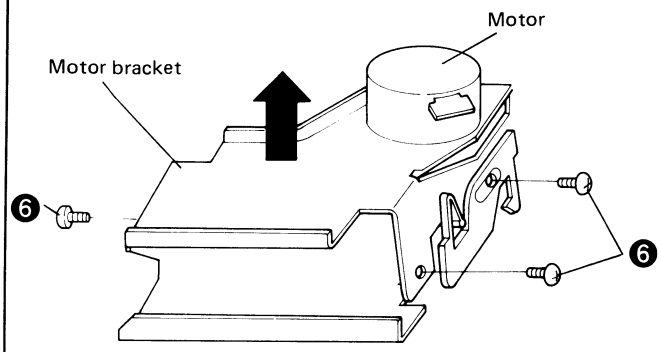


Fig. 4-7 Removal of the motor bracket

Note: Make sure that the positions of the motor and motor pulley (H) are as shown in the figure below.

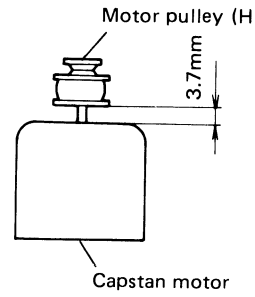


Fig. 4-10 Diagram showing the positions of the motor and motor pulley (H)

5. Replace the belt. Procedure is the reverse of removal.
Note: For DECK 1 (RYM-202), Item 3 is shortened.

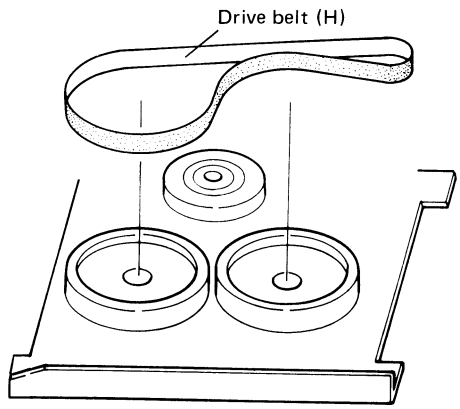


Fig. 4-8 Replacement of the drive belt (H)

4. Remove the three screws ❼ . Remove the motor from the from the motor bracket and replace.

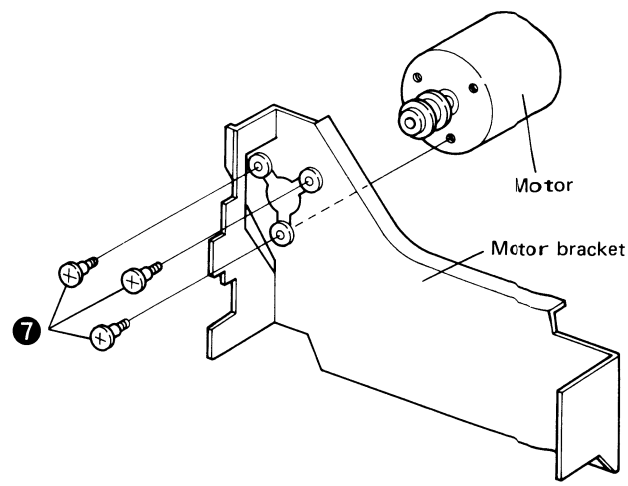


Fig. 4-11 Replacement of the motor

4.4 Motor replacement procedure.

1. Remove the mechanical unit from the main body. (See 4-2 for removal of the mechanical unit)
2. Remove the motor bracket from the mechanical chassis. (See 4-3. Belt replacement procedure).
3. Remove the motor lead by using a soldering iron.

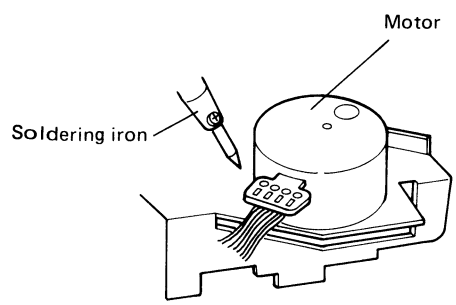
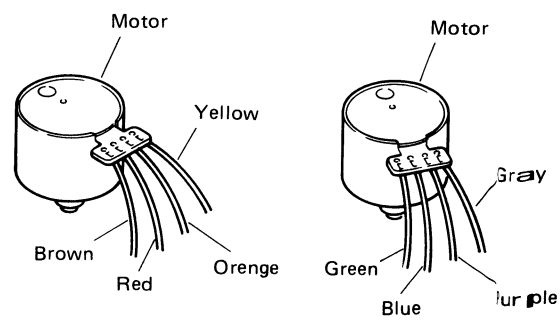


Fig. 4-9 Removal of the motor lead

5. Assembly is carried out in reverse order to disassembly. (Make sure that the motor has the correct orientation onins tallation).
6. Carry out tape speed adjustments. (See 11-3 Tape speed adjustments)

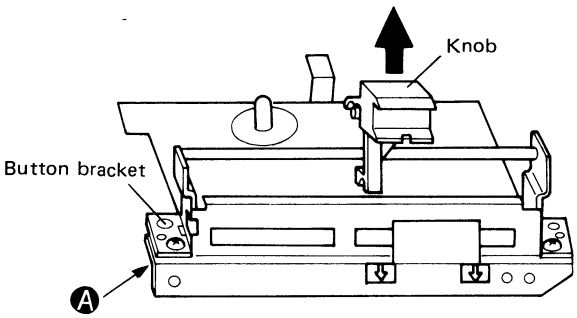


DECK I (RYM-202) DECK II (RYM-203)

Fig. 4-12 Motor P.C.B wiring diagram

4.5 Head Replacement Procedure.

1. Remove the mechanical unit from the main body.
2. Remove each knob from the mechanical unit.



Note: There is a spring attached to part Ⓐ If this spring is released, re-insertion can be extremely difficult so avoid removal of the button bracket from the mechanical unit.

Fig. 4-13 Removal of the knobs

3. Remove the wire band (Monofilament) from the head lead.

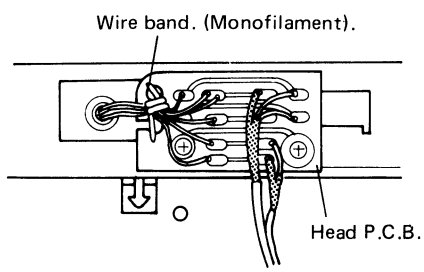


Fig. 4-14 Removal of the wire hand (Monofilament)

4. Remove the head lead from the head P.C.B. with a soldering iron.

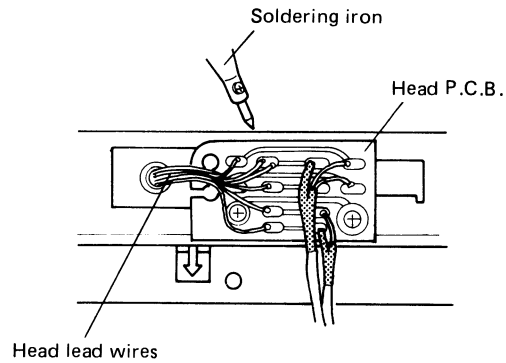


Fig. 4-15 Removal of the head lead

5. Remove the two screws Ⓑ which secure the rotary head assembly to the head chassis assembly.

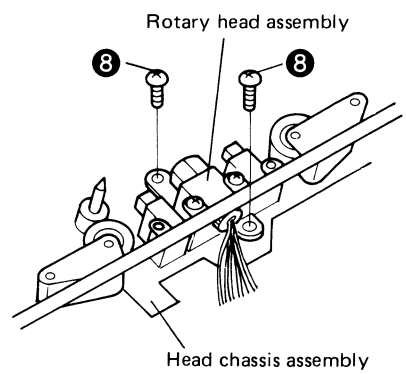


Fig. 4-16 Removal of the rotary head assembly

6. Slide the head chassis forward with a finger. Remove the rotary head assembly and replace.

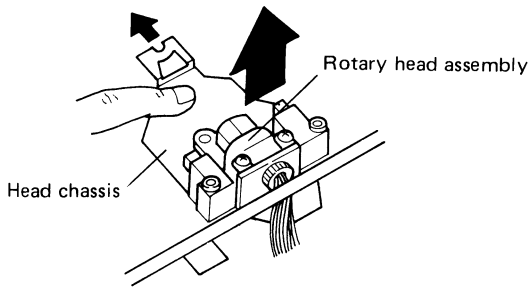
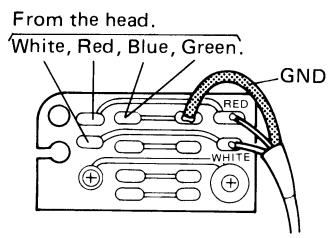
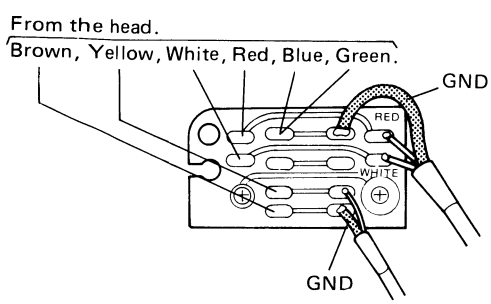


Fig. 4-17 Head replacement procedure

7. Assemble in reverse order to disassembly. (Note the orientation of the rotary head assembly).



DECK I (RYM-202) head P.C.B.



DECK II (RYM-203) head P.C.B.

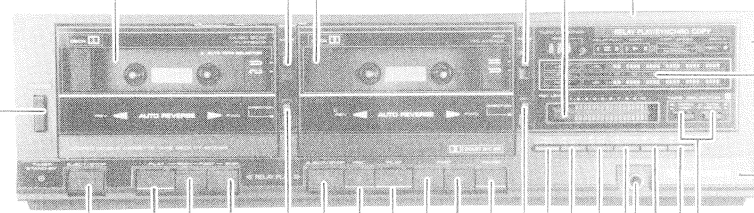
Fig. 4-18 Head P.C.B wiring diagram

5. PARTS LOCATION

NOTES:

- *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
- *For your Parts Stock Control, the fast moving items are indicated with the marks ★★ and ★.*
  ★★ GENERALLY MOVES FASTER THAN ★
  This classification shall be adjusted by each distributor because it depends on model number, temperature, humidity, etc.
- *Parts marked by " ⊙ " are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.*

Front Panel View



Door panel R
RAH-830

Mode knob
RAC-724

Door panel L
RAH-829

Knob (POWER)
RAC-682

Stop button (EJECT/STOP)
RAC-719

Play button (PLAY)
RAC-721

REW button (FAST)
RAC-722

FF button (FAST)
RAC-723

Direction knob (DIRECTION)
RAC-725

Stop button (EJECT/STOP)
RAC-719

REC button (REC)
RAC-720

Play button (PLAY)
RAC-721

REW button (FAST)
RAC-722

FF button (FAST)
RAC-723

Mode knob (MODE)
RAC-724

VR knob (REC LEVEL)
RAC-680

Front panel assembly
RXX-538

Front panel

Display panel
RAH-834

Function panel
RAH-836

Tape knob (TAPE SELECTOR)
RAC-726

Dolby knob (DOLBY-B-C NR)
RAC-728

Dolby knob (DOLBY ON/OFF)
RAC-732

Headphone jack
RKN-096

Speed knob (COPY SPEED)
RAC-730

Copy knob (TAPE COPY)
RAC-729

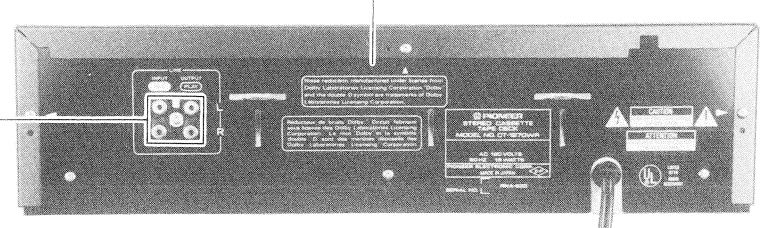
Relay knob (RELAY)
RAC-731

Mute knob (MUTE)
RAC-727

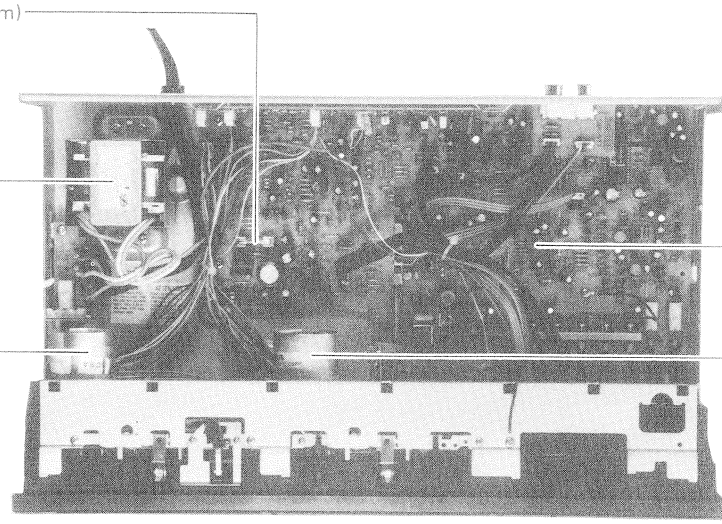
Direction knob (DIRECTION)
RAC-725

Pause button (PAUSE)
RAC-718

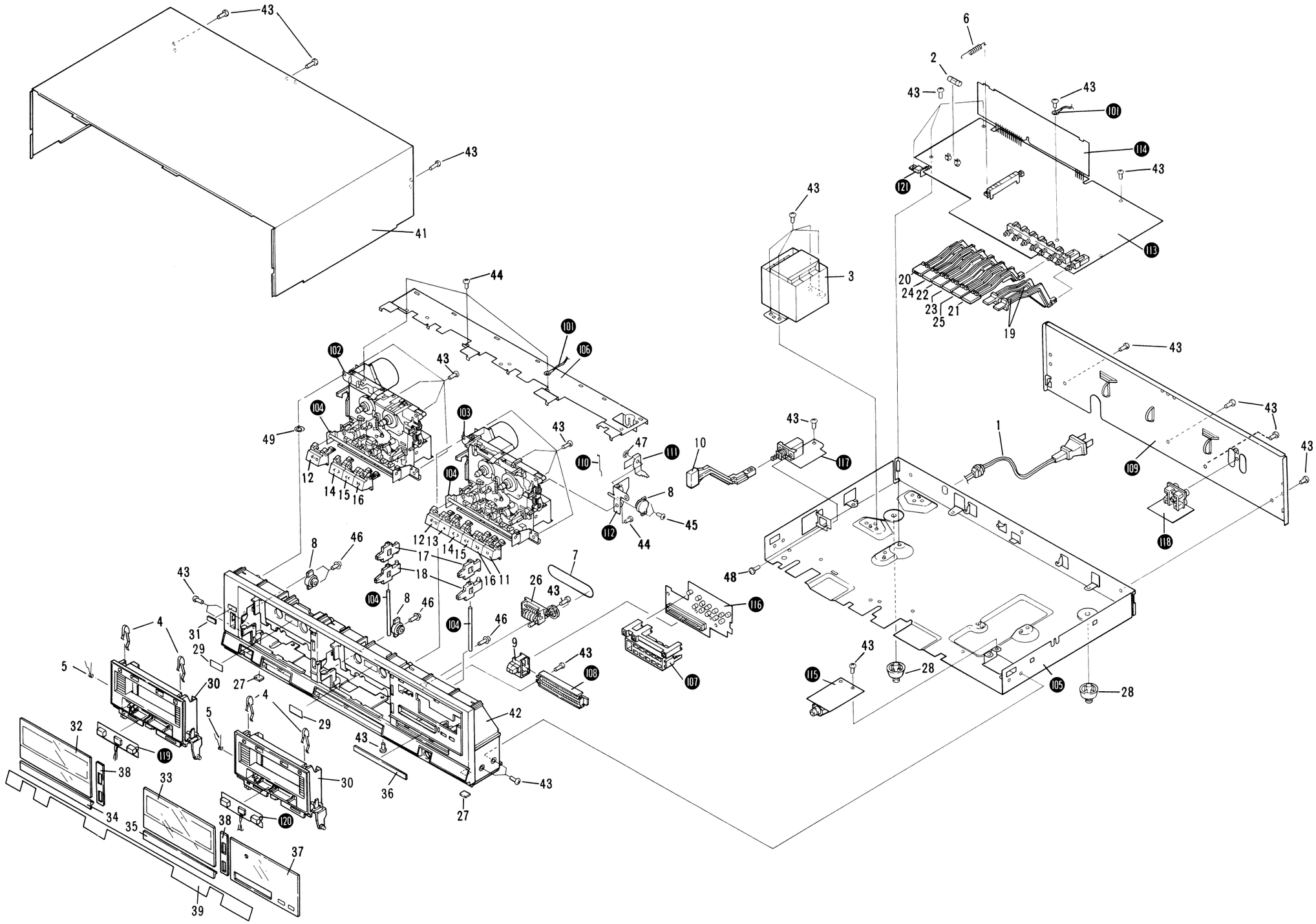
Rear Panel View



Top View



6. EXPLODED VIEWS AND PARTS LIST



Part List

Mark	No
	1
⚠ ★★	2
⚠ ★	3
	4
	5
	6
	7
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	10
	11
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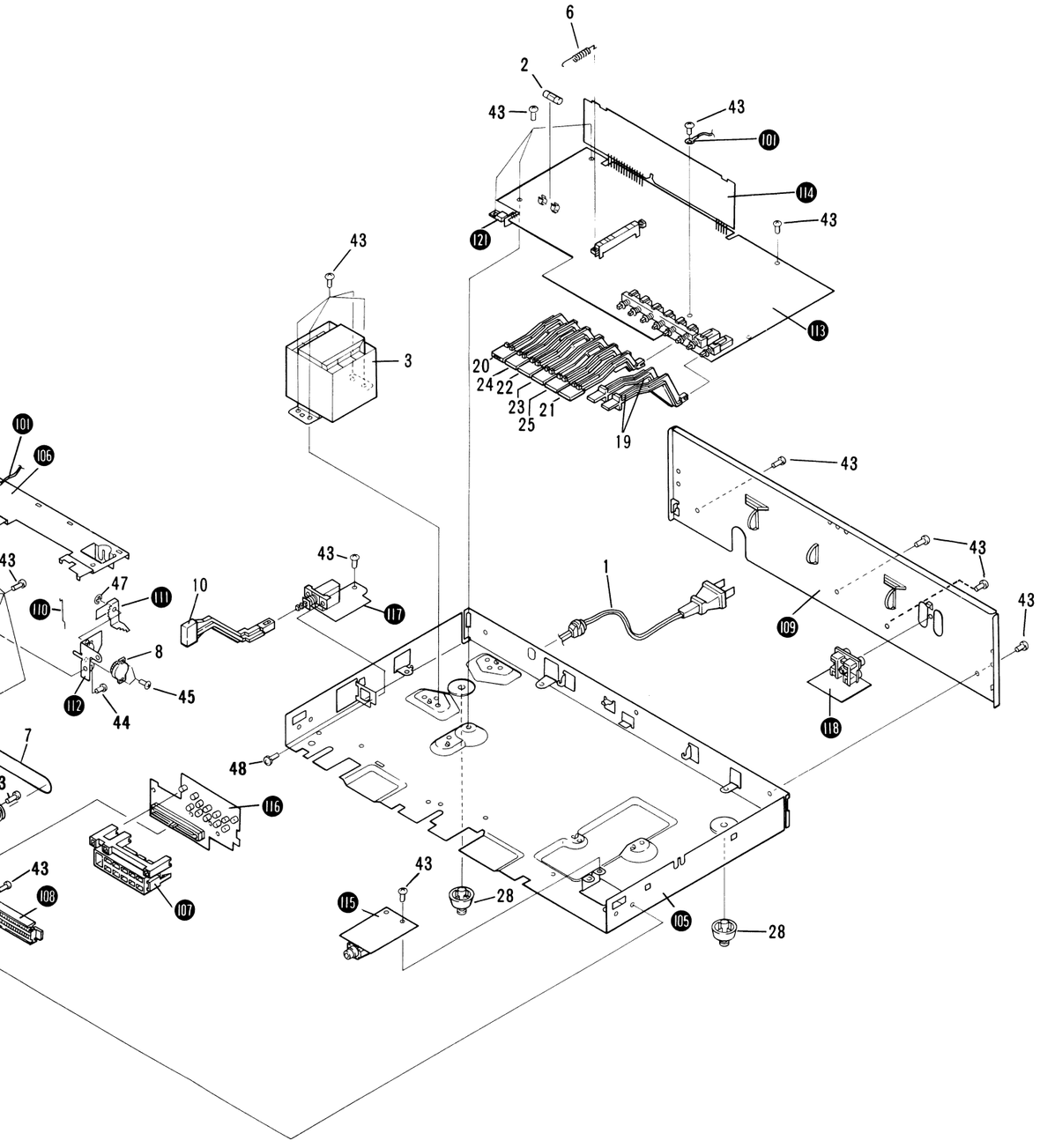


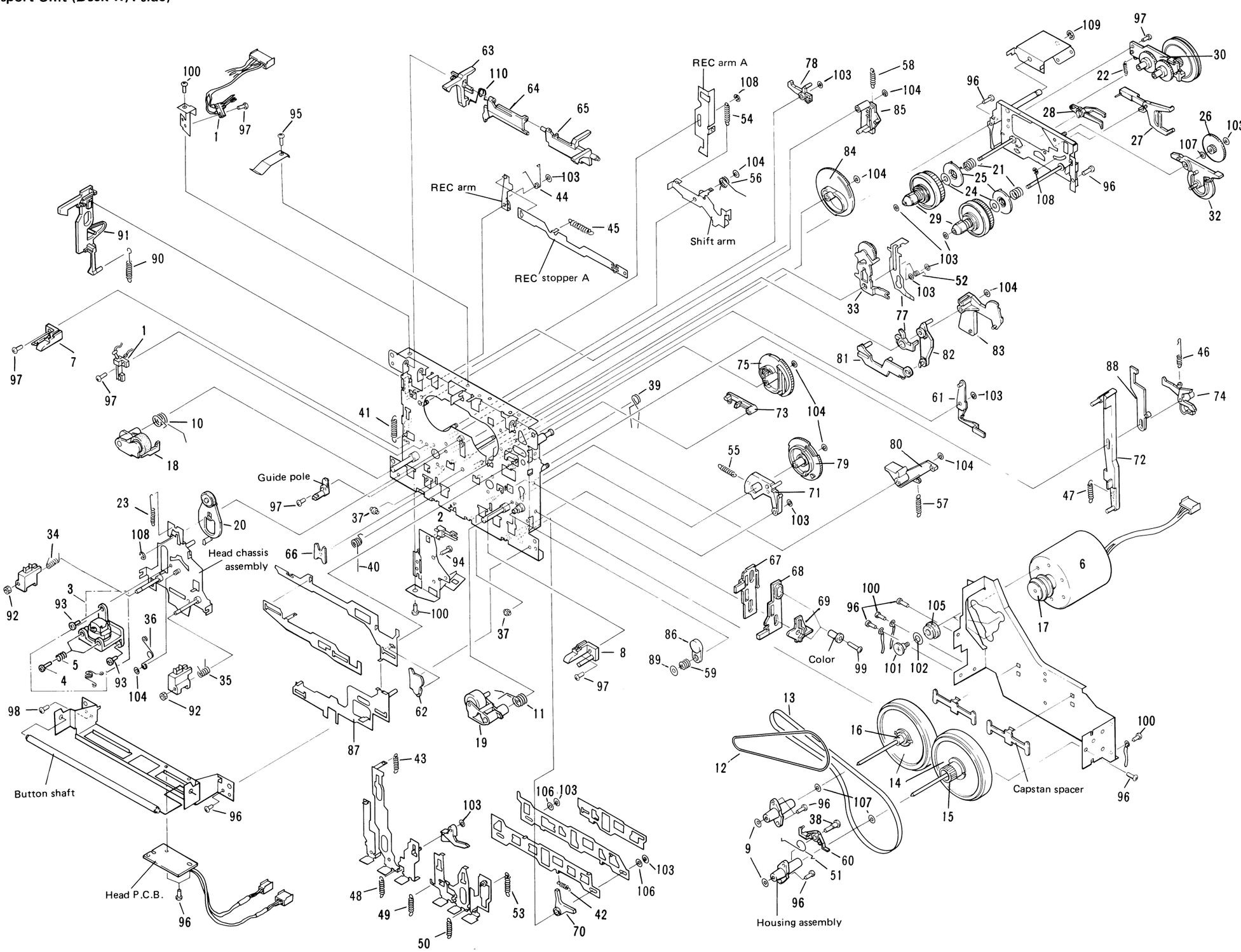
NOTES:

- *Parts without part number cannot be supplied.*
- *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
- *For your Parts Stock Control, the fast moving items are indicated with the marks ★★ and ★.*
  ★★ GENERALLY MOVES FASTER THAN ★
  This classification shall be adjusted by each distributor because it depends on model number, temperature, humidity, etc.
- *Parts marked by " ⊙ " are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.*

Part List of Exploded View (Exterior Components)

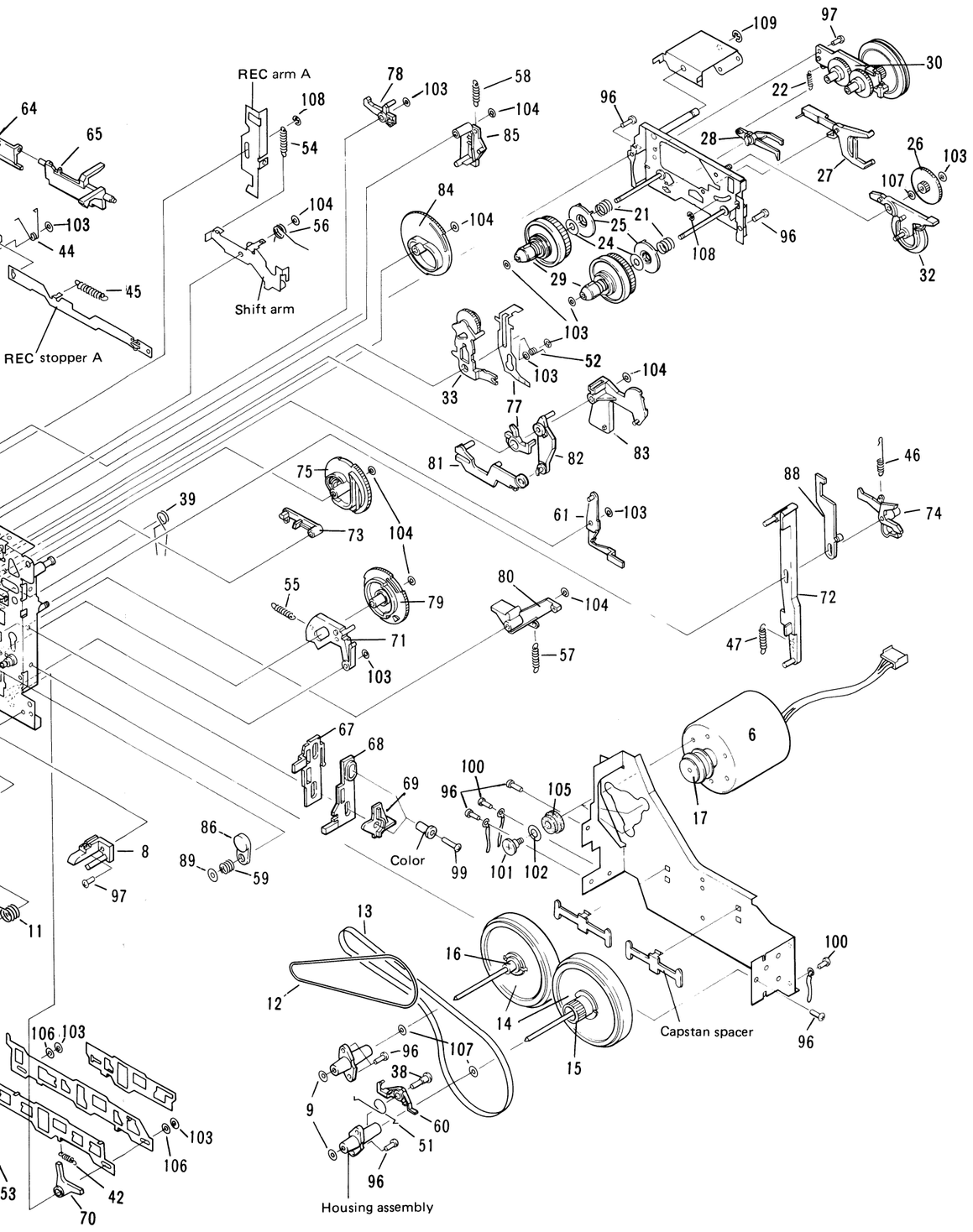
Mark	No.	Part No.	Description
	1	RDG-064	AC Power cord
⚠ ★★	2	REK-073	Fuse (FU1: 1.25A 20mm)
⚠ ★	3	RTT-462	Power transformer (T1)
	4	RBK1001	Harf pressure spring
	5	RBL-222	Door spring
	6	RBL-181	Switch rod spring
	7	REB-555	Counter belt
	8	REC-436	Door damper
	9	RAC-680	Knob (VR)
	10	RAC-682	Knob (POWER)
	11	RAC-718	Pause button (PAUSE)
	12	RAC-719	Stop button (STOP)
	13	RAC-720	REC button (REC)
	14	RAC-721	Play button (PLAY)
	15	RAC-722	REW button (REW)
	16	RAC-723	FF button (FF)
	17	RAC-724	Mode knob (MODE)
	18	RAC-725	Direction knob
	19	RAC-726	Tape knob (TAPE)
	20	RAC-727	Mute knob (MUTE)
	21	RAC-728	Dolby knob (DOLBY B-C NR)
	22	RAC-729	Copy knob (COPY)
	23	RAC-730	Speed knob (COPY SPEED)
	24	RAC-731	Relay knob (RELAY)
	25	RAC-732	Dolby knob
	26	RAW-221	Counter
	27	REB-513	Stopper
	28	REC-435	Leg assembly
	29	REE-113	Remain display paper
	30	RNM-186	Door
	31	RAH-804	Power panel
	32	RAH-829	Door panel (L)
	33	RAH-830	Door panel (R)
	34	RAH-831	Door plate (L)
	35	RAH-832	Door plate (R)
	36	RAH-833	Knob plate
	37	RAH-834	Display panel
	38	RAH-835	Mode panel
	39	RAH-836	Function panel
	40	REC-371	Binder
	41	RNA-806	Bonnet
	42	RXX-538	Front panel assembly
	43	BBZ30P080FMC	Screw
	44	BBZ26P060FMC	Screw
	45	PBZ20P060FZK	Screw
	46	ABZ30P080FMC	Screw
	47	YE30FUC	E-ring
	48	PMA30P060FMC	Screw
	49	WT42D070D013	Washer
	101		Earth lead assembly
	102		Mechanism assembly
	103		Mechanism assembly
	104		Knob shaft
	105		Main chassis
	106		Top stay
	107		LED Holder A
	108		VR knob guide
	109		Rear panel
	110		Rod spring
	111		Select lever
	112		REC select bracket assembly
	113		Main unit
	114		Sub unit
	115		Headphone unit
	116		Display unit
	117		Power switch unit
	118		Jack unit
	119		Door display unit 1
	120		Door dispaly unit 2
	121		Transistor unit

Tape Transport Unit (Deck II) : side)



Parts List of Ta

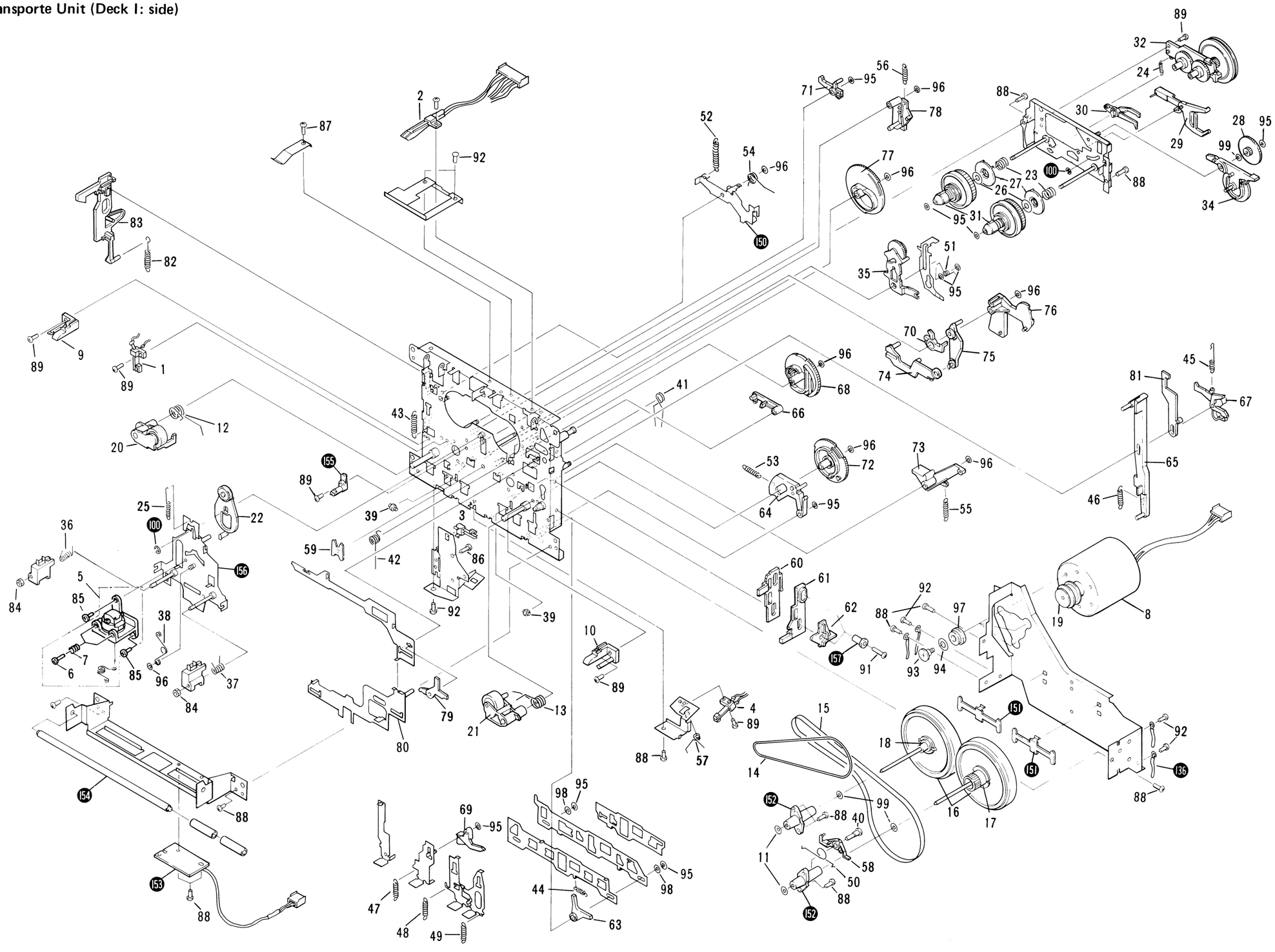
Mark	No.	Part
A	1	RSN-
	2	RSN-
	3	RXC
	4	RBA-
	5	RBL-
	6	RXM
	7	RNM
	8	RNM
	9	RBF-
	10	RBL-
	11	RBL-
	12	REB-
	13	REB-
	14	RNG
	15	RNM
B	16	RNM
	17	RNM
	18	RXC
	19	RXC
	20	RXC
	21	RBL-
	22	RBL-
	23	RBL-
	24	RED
	25	RNM
	26	RNM
	27	RNM
	28	RNM
	29	RXC
	30	RXC
C	31	
	32	RXC
	33	RXC
	34	RBL-
	35	RBL-
	36	RBL-
	37	RLB-
	38	RBA
	39	RBL-
	40	RBL-
	41	RBL
	42	RBL
	43	RBL
	44	RBL
	45	RBL
D	46	RBL
	47	RBL
	48	RBL
	49	RBL
	50	RBL
	51	RBL
	52	RBL
	53	RBL
	54	RBL
	55	RBL



Parts List of Tape Transport Unit (Deck II: side)

Mark	No.	Part No.	Description	Mark	No.	Part No.	Description
A	1	RSN-040	Leaf switch (S1502, S1503 REC)		56	RBL-209	Shift arm SP
	2	RSN-042	Leaf switch (S1501 PLAY)		57	RBL-210	Shift arm R-SP (B)
	3	RXC-173	R-Head assembly		58	RBL-211	G lock arm (P) SP-C
	4	RBA-098	Azimuth screw		59	RBL-212	Pause cam SP
	5	RBL-216	Azimuth spring		60	RNM-187	FR arm (B)
	6	RXM-145	Motor		61	RNM-192	REC lever (B)
	7	RNM-195	Cassette guide (L)		62	RNM-193	1 mode arm
	8	RNM-196	Cassette guide (R)		63	RNM-227	REC sensor (L)
—	9	RBF-050	Washer		64	RNM-228	REC sensor (M)
	10	RBL-184	Roller spring (L)		65	RNM-229	REC sensor (R)
	11	RBL-185	Roller spring (P)		66	RNM-230	Idler arm
	12	REB-551	FR belt (H)		67	RNM-231	Mode lever
	13	REB-552	Drive belt (H)		68	RNM-232	Direction lever
	14	RNG-361	Flywheel (C)		69	RNM-233	Direction ST arm
	15	RNM-199	Flywheel gear		70	RNM-234	Cam cancel lever
B	16	RNM-200	Flywheel collar		71	RNM-235	G lock arm (FR)
	17	RNM-203	Motor puller (H)		72	RNM-236	Auto stop lever
	18	RXC-162	Roller arm assembly (L)		73	RNM-238	AS direction arm
	19	RXC-163	Roller arm assembly (R)		74	RNM-239	Direction arm
	20	RXC-175	Idler arm assembly		75	RNM-240	RV cam gear
	21	RBL-186	Back T Spring (B)		76	RNM-241	Play arm
	22	RBL-187	Auto arm spring		77	RNM-242	Brake arm (L)
	23	RBL-188	Idler spring		78	RNM-243	Brake arm (R)
—	24	RED-209	Auto clutch felt		79	RNM-244	FR arm gear (B)
	25	RNM-205	Auto clatch		80	RNM-245	Shift arm (FR)
	26	RNM-213	Auto gear		81	RNM-246	P-M lever (A)
	27	RNM-214	Auto sensor		82	RNM-247	P-M lever (B)
	28	RNM-215	Auto arm		83	RNM-248	G lock arm (RV)
	29	RXC-165	Reel (B) assembly		84	RNM-249	P cam gear
	30	RXC-166	Clutch assembly (B)		85	RNM-250	Gear lock arm (P)
	31				86	RNM-251	Pause cam
C	32	RXC-176	Auto cam arm assembly		87	RXC-168	RV lever assembly
	33	RXC-177	FR Idler arm assembly		88	RNM-237	Mode arm
	34	RBL-189	Tape G spring (L)		89	WA026N070C050	Nylon washer
	35	RBL-190	Tape G spring (R)		90	RBL-183	E lever spring
	36	RBL-191	P Idler spring (B)		91	RNM-198	Eject lever
	37	RLB-606	Guide roller		92	NB20FMC	Nut
	38	RBA-099	Screw		93	PMD20P040FMC	Pan screw
	39	RBL-192	RV arm spring		94	PMD20P050FMC	Pan screw
—	40	RBL-193	H chasis return SP		95	PSD20P030FMC	Tap tite screw
					96	PSD20P040FMC	Tap tite screw
	41	RBL-194	Lock cam (M) SP		97	PSD20P050FMC	Tap tite screw
	42	RBL-195	Cam spring		98	PSD20P080FMC	Tap tite screw
	43	RBL-196	REC lever SP		90	PSD20P100FMC	Tap tite screw
	44	RBL-197	REC M arm spring		100	PSD26P040FMC	Tap tite screw
	45	RBL-198	REC stopper SP		101	RBA-097	Screw (B)
D	46	RBL-199	AS dir arm SP		102	RBE-025	Washer (B)
	47	RBL-200	Auto stop SP		103	RBF-076	Polyslider washer
	48	RBL-201	G lock arm (P) SP		104	RBF-083	Polyslider washer
	49	RBL-202	REW stop SP		105	REB-556	Motor cushion
	50	RBL-203	FF lever SP		106	WA021D040D050	Polyslider washer
	51	RBL-204	FR arm (B) SP		107	WA021D040D025	Polyslider washer
	52	RBL-205	Brake arm SP		108	YE20S	
	53	RBL-206	Pause lever SP		109	YE25S	
	54	RBL-210	Shift arm spring		110	RBL-223	REC sensor SP (L)
	55	RBL-208	P-M lever SP				

Tape Transporte Unit (Deck I: side)



Parts List of

Mark	No.	Pa
	1	RS
	2	RS
	3	RS
	4	RS
	5	RX
	6	RE
	7	RE
	8	RX
	9	RN
	10	RN
	11	RE
	12	RE
	13	RE
	14	RE
	15	RE
	16	RN
	17	RN
	18	RN
	19	RN
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	29	RN
	30	RN
	31	RX
	32	RX
	33	
	34	RX
	35	RX
	36	RE
	37	RE
	38	RE
	39	RL
	40	RE
	41	RE
	42	RE
	43	RE
	44	RE
	45	RE
	46	RE
	47	RE
	48	RE
	49	RE
	50	RE
	51	RE
	52	RE
	53	RE
	54	RE
	55	RE

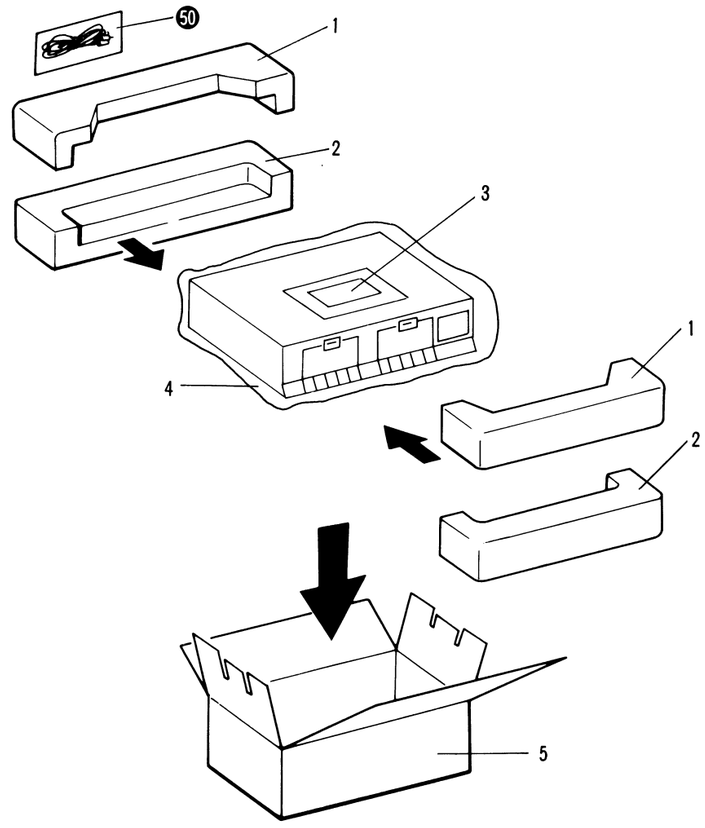
Parts List of Tape Transport Unit (Deck I: side)

Mark	No.	Part No.	Description
	1	RSN-040	Leaf switch (S1403 REV)
	2	RSN-041	Leaf switch (S1404 70μSec)
	3	RSN-042	Leaf switch (S1401 PLAY)
	4	RSN-043	Leaf switch (S1402 FF/REW)
	5	RXC-173	R-head assembly
	6	RBA-098	Azimuth screw
	7	RBL-216	Azimuth spring
	8	RXM-145	Motor
	9	RNM-195	Cassette guide (L)
	10	RNM-196	Cassette guide (R)
	11	RBF-050	Washer
	12	RBL-184	P roller spring (L)
	13	RBL-185	P roller spring (R)
	14	REB-551	FR belt (H)
	15	REB-552	Drive belt (H)
	16	RNG-361	Flywheel (C)
	17	RNM-199	Flywheel gear
	18	RNM-200	Flywheel collar
	19	RNM-203	Motor pulley (H)
	20	RXC-162	P roller arm assembly (L)
	21	RXC-163	P roller arm assembly (R)
	22	RXC-175	P idler arm assembly
	23	RBL-186	Back T spring (B)
	24	RBL-187	Auto arm spring
	25	RBL-188	Idler spring
	26	RED-209	Auto clutch felt
	27	RNM-205	Auto clutch
	28	RNM-213	Auto gear
	29	RNM-214	Auto sensor
	30	RNM-215	Auto arm
	31	RXC-165	Reel (B) assembly
	32	RXC-166	Clutch assembly (B)
	33		
	34	RXC-176	Auto cam arm assembly
	35	RXC-177	FR idler arm assembly
	36	RBL-189	Tape G spring (L)
	37	RBL-190	Tape G spring (R)
	38	RBL-191	P idler spring (B)
	39	RLB-606	Guide roller
	40	RBA-099	Screw
	41	RBL-192	RV arm spring
	42	RBL-193	H chasis return SP
	43	RBL-194	Lock cam (M) SP
	44	RBL-195	Cam spring
	45	RBL-199	AS dir arm SP
	46	RBL-200	Auto stop SP
	47	RBL-201	G lock arm (P) SP
	48	RBL-202	REW lever SP
	49	RBL-203	FF lever SP
	50	RBL-204	FR arm (B) SP
	51	RBL-205	Brake arm SP
	52	RBL-210	Shift arm spring
	53	RBL-208	P-M lever SP
	54	RBL-209	Shift arm SP
	55	RBL-210	Shift arm R-SP (B)
	56	RBL-211	G lock arm (P) SP-C
	57	RBL-218	Solenoid spring
	58	RNM-187	FF arm (B)
	59	RNM-230	Idler arm
	60	RNM-231	Mode lever
	61	RNM-232	Direction lever
	62	RNM-233	Direction ST arm
	63	RNM-234	Cam cancel lever
	64	RNM-235	G lock arm (FR)
	65	RNM-236	Auto stop lever
	66	RNM-238	AS direction arm
	67	RNM-239	Direction arm
	68	RNM-240	RV cam gear
	69	RNM-241	Play arm
	70	RNM-242	Brake arm (L)
	71	RNM-243	Brake arm (R)
	72	RNM-244	FR cam gear (B)
	73	RNM-245	Shift arm (FR)
	74	RNM-246	P-M lever (A)
	75	RNM-247	P-M lever (B)
	76	RNM-248	G lock arm (RV)
	77	RNM-249	P cam gear
	78	RNM-250	Gear lock arm (P)
	79	RNM-252	U mode arm
	80	RXC-168	RV lever assembly
	81	RNM-237	Mode arm
	82	RBL-183	E lever spring
	83	RNM-198	Eject lever
	84	NB20FMC	Nut
	85	PMD20P040FMC	Pan screw
	86	PMD20P050FMC	Pan screw
	87	PSD20P030FMC	Tap tite screw
	88	PSD20P040FMC	Tap tite screw
	89	PSD20P050FMC	Tap tite screw
	90	PSD20P080FMC	Tap tite screw
	91	PSD20P100FMC	Tap tite screw
	92	PSD26P040FMC	Tap tite screw
	93	RBA-097	Screw (B)
	94	RBE-025	Washer (B)
	95	RBF-076	Polyslider washer
	96	RBF-083	Polyslider washer
	97	REB-556	Motor cushion
	98	WA021D040D050	Polyslider washer
	99	WA021D040D025	Polyslider washer
	100	YE205	
	150		Shift arm assembly
	151		Capstan spacer
	152		Housing assembly
	153		Head P.C.B.
	154		Button shaft
	155		Guide pole
	156		Head chassis assembly
	157		Color

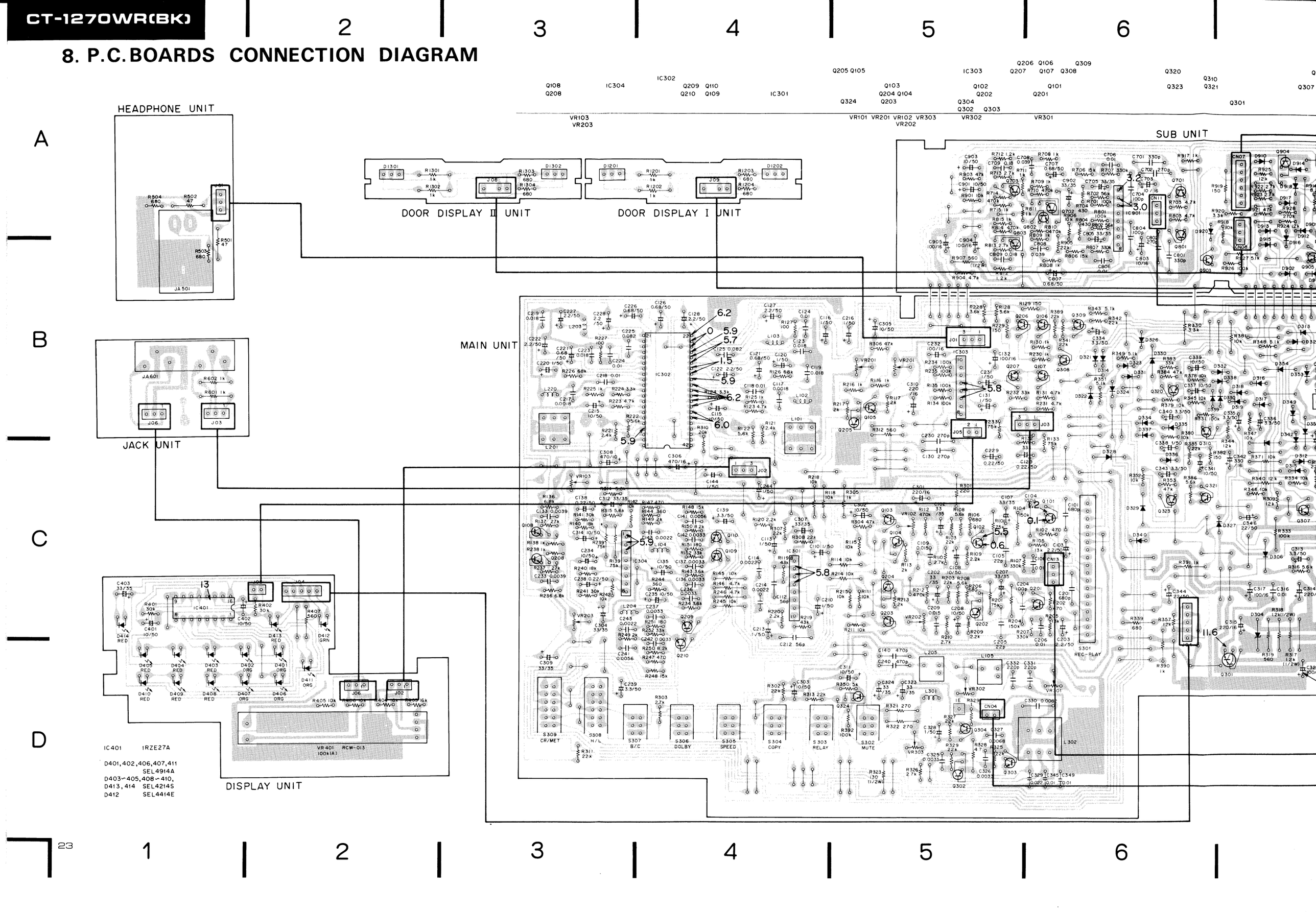
6. PACKING

Parts List

Mark	No.	Part No.	Description
	1	RHA1001	Pad (UPPER)
	2	RHA1002	Pad (LOWER)
	3	RRB-276	Operating instructions (English)
	4	RHC-161	Styrene paper
	5	RHG-887	Packing case
	50		Connection cord assembly



8. P.C.BOARDS CONNECTION DIAGRAM



SUB UNIT

VR306 VR307
VR305 VR304

IC901 M5220L
IC902 TC4011BP

Q701~703,801~803 2SC1740SLN
Q901~904 2SA933S
Q905 DTC114ES

D901~920 1SS254

IC301,303,304 M5218L
IC302 HA12088NT

Q101,201 2SC2240
Q102~110, 202~210, Q305~307, 309, 310, 315 Q318~320, 323 2SC1740SLN
Q301 2SD1276
Q302,303 2SC3246
Q304 2SD1302
Q308,313,314,321,324 2SA933S
Q311,316 DTC114S
Q312,317 2SA934

D301 1B2Z1-LC2
D302 1B2S1-LC2
D303,343,345 1SR35-100A
D304,305 MTZ13A
D306~342,344,346~455 1SS254

TRANSISTOR UNIT

AC120V 60Hz

POWER SW UNIT

ORG RED WHT RED T1 RTT-462:KU

MECHANISM I UNIT (1/2)

M-I P1 P2

PLAY S1401 FF/REV S1402 REV S1403 70μ sec S1404

MECHANISM II UNIT (1/3)

REV S1503 REC S1502 PLAY S1501

M-II P1 P2

MECHANISM I UNIT (2/2)

MECHANISM II UNIT (2/3)

MECHANISM II UNIT (3/3)

A B C D

9. SCHEMATIC DIAGRAM

Playback signal route (Lch)
Recording signal route (Rch)

MECHANISM I UNIT (1/2)
MECHANISM II UNIT (2/3)
MECHANISM II UNIT (3/3)
Door Display 1 Unit
Door Display 2 Unit
Sub Unit
Main Unit
Transistor Unit
IC901: PB. AMP
IC902: DIRECTION LAMP SWITCH (FWD ON)
IC303: MIC AMP
IC304: REC AMP.
IC302: DOLBY NR B/C PROCESSOR
IC301: FLAT AMP.
Q701,801: SWITCHING (HIGH SPEED→OFF)
Q702,802: SWITCHING (HIGH SPEED→ON)
Q703,803: SWITCHING (NORM TAPE OFF)
Q901: SWITCHING (I STOP→ON)
Q903: DIRECTION LAMP SWITCH (FWD ON)
Q904: SWITCHING (II STOP→ON)
Q905: SWITCHING (II STOP→ON)
Q306: SWITCHING (RELAY→ON)
Q307: SWITCHING (COPY→ON)
Q308,309: SWITCHING (CUE REV→ON)
Q310: SWITCHING (COPY OFF→ON)
Q311,312: DECK I MOTOR SWITCH
Q315: SWITCHING (RELAY→ON)
Q316,317: DECK II MOTOR SWITCH
Q305: TIMING CONTROL
Q103,203: PB MUTE GATE (DECK II)
Q101,201,102,202: PB AMP.
Q105,205: PB MUTE GATE (DECK I)
VR101,201,102,202: PB LEVEL ADJ
Q106,206: QUE (REV) MUTE
Q107,207: LINE MUTE
Q108,208,324 REC MUTE
VR103,203: REC LEVEL ADJ
VR304,307: DOUBLE TAPE SPEED ADJ
VR305,306 NORMAL TAPE SPEED ADJ
VR301,302: BIAS ADJ
Q301: VOLTAGE REGULATOR
Q1001: VOLTAGE REGULATOR
Q110,210: SWITCHING (HIGH SPEED→ON)
Q109,209: SWITCHING (HIGH SPEED→OFF)
T1 RTT-462-KU
FU1: REK-073
FU1 1.25A 120V
S1101 POWER SW (OFF-ON)
AC 120V 60Hz
AC POWER CORD RDG-064
SWITCHES:
MECHANISM I
S1401 PL
S1402 FF/
S1403 RE
S1404 70
MECHANISM II
S1501 PL
S1502 REC
S1503 REV

SWITCHES:

MECHANISM 1 UNIT

SI401	PLAY	PLAY–STOP
SI402	FF/REW	FF/REW–OFF
SI403	REV	REV–FWD
SI404	70μsec	ON(70μsec)–OFF(120μsec)

MECHANISM 2 UNIT

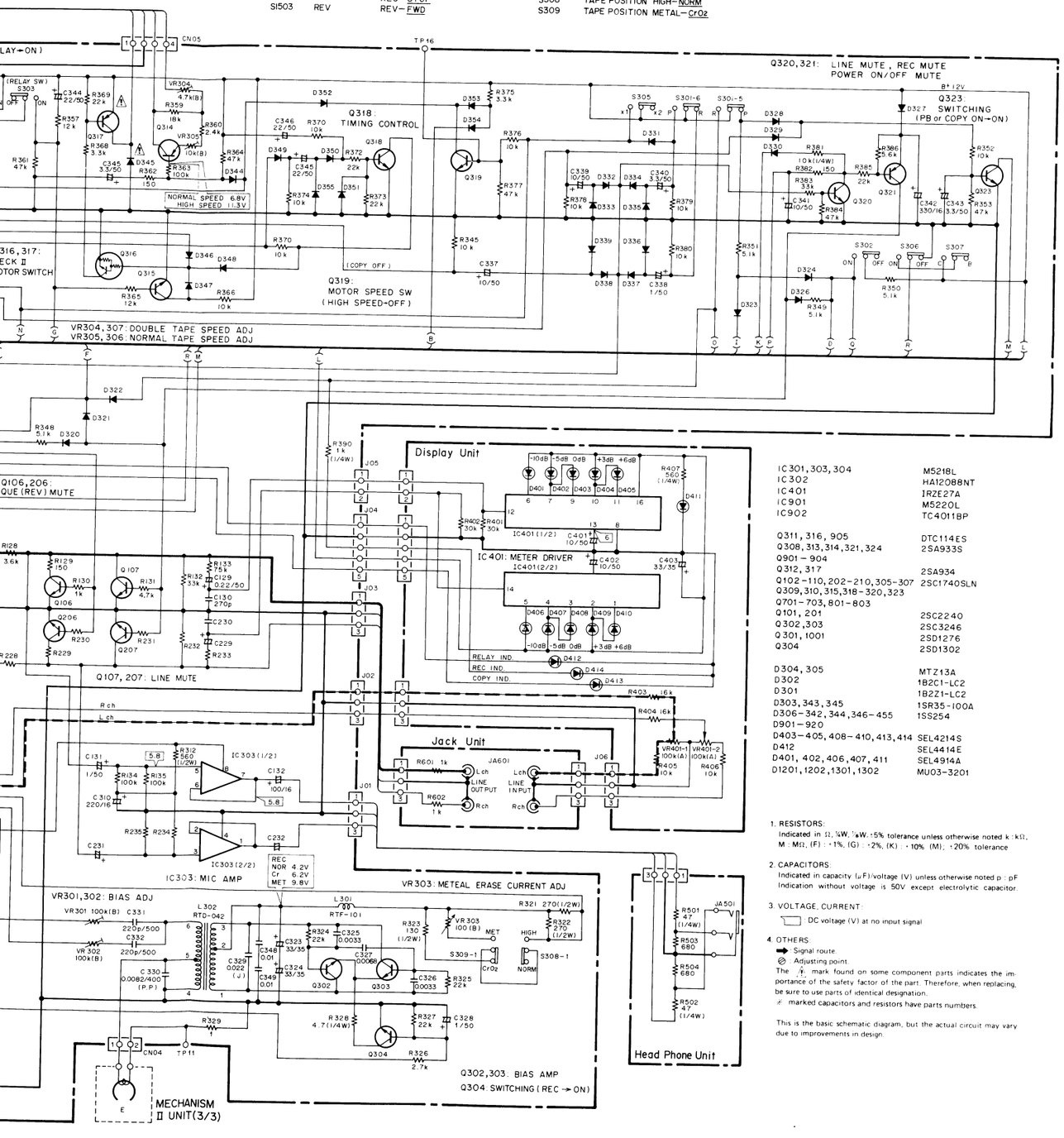
SI501	PLAY	PLAY–STOP
SI502	REC	REC–STOP
SI503	REV	REV–FWD

MAIN UNIT

S301	REC–PB	REC–PB
S302	REC MUTE	ON–OFF
S303	RELAY	ON–OFF
S304	COPY	ON–OFF
S305	SPEED	X2–X1
S306	DOLBY	ON–OFF
S307	NR TYPE	C–B
S308	TAPE POSITION	HIGH–NORM
S309	TAPE POSITION	METAL–CrO2

POWER SW UNIT

SI101	POWER	ON–OFF



IC301,303,304	M5218L
IC302	HA12088NT
IC401	IR2E27A
IC901	M5220L
IC902	TC4011BP
Q311,316,905	DTC114ES
Q308,313,314,321,324	2SA933S
Q901–904	
Q312,317	2SA934
Q102–110,202–210,305–307	2SC1740SLN
Q309,310,315,318–320,323	
Q701–703,801–803	
Q101,201	2SC2240
Q302,303	2SC3246
Q301,1001	2SD1276
Q304	2SD1302
D304,305	MTZ13A
D302	1B2C1-LC2
D301	1B2Z1-LC2
D303,343,345	1SR35-100A
D306–342,344,346–455	1SS254
D901–920	
D403–405,408–410,413,414	SEL4214S
D412	SEL4414E
D401,402,406,407,411	SEL4914A
D1201,1202,1301,1302	MU03-3201

1. RESISTORS:
Indicated in Ω, ¼W, ½W, ±5% tolerance unless otherwise noted k : kΩ, M : MΩ, (F) : ±1%, (G) : ±2%, (K) : ±10% (M) : ±20% tolerance

2. CAPACITORS:
Indicated in capacity (μF)/voltage (V) unless otherwise noted p : pF
Indication without voltage is 50V except electrolytic capacitor.

3. VOLTAGE, CURRENT:
: DC voltage (V) at no input signal

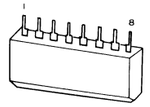
4. OTHERS:
: Signal route.
: Adjusting point.
The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.
⚠ marked capacitors and resistors have parts numbers.

This is the basic schematic diagram, but the actual circuit may vary due to improvements in design.

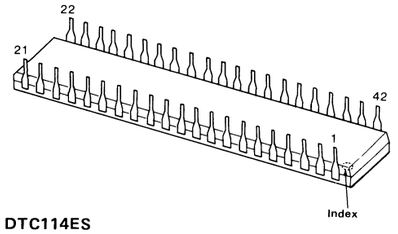
NOTE:
The indicated semiconductors are representative ones only. Other alternative semiconductors may be used and are listed in the parts list.

External Appearance of Transistors and ICs

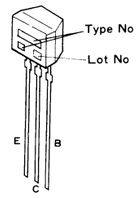
M5218L
M5220L



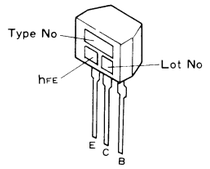
HA12088NT



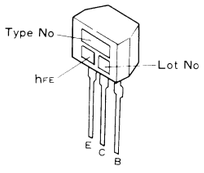
DTC114ES



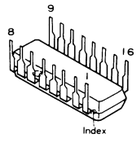
2SA933S



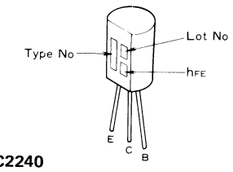
2SC1740SLN



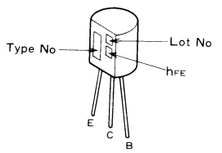
IR2E27A



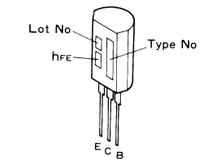
2SA934



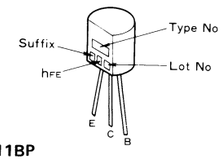
2SC2240



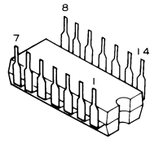
2SC3246



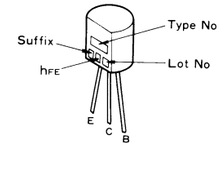
2SD1302



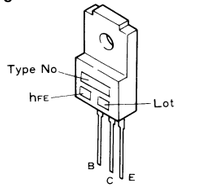
TC4011BP



2SD1302



2SD1276



10. ELECTRICAL PARTS LIST

NOTES:

- *When ordering resistors, first convert resistance values into code form as shown in the following examples.*

  Ex. 1 *When there are 2 effective digits (any digit apart from 0), such as 560 ohm and 47k ohm (tolerance is shown by J=5%, and K=10%).*

560Ω	*56 × 10¹*	*561*	*RD¼PS 5 6 1 J*
47kΩ	*47 × 10³*	*473*	*RD¼PS 4 7 3 J*
0.5Ω	*0R5*		*RN2H 0 R 5 K*
1Ω	*010*		*RS1P 0 1 0 K*

  Ex. 2 *When there are 3 effective digits (such as in high precision metal film resistors).*

5.62kΩ	*562 × 10¹*	*5621*	*RN¼SR 5 6 2 1 F*

- *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
- *For your Parts Stock Control, the fast moving items are indicated with the marks ★★ and ★.*
  ★★ GENERALLY MOVES FASTER THAN ★
  This classification shall be adjusted by each distributor because it depends on model number, temperature, humidity, etc.
- *Parts marked by " ⊙ " are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.*

Miscellaneous Parts

P.C. BOARD UNITS

Mark	Symbol & Description	Part No.
	Power switch unit	Non supply
	Main unit	Non supply
	Display unit	Non supply
	Door display 1 unit	Non supply
	Door display 2 unit	Non supply
	Transistor unit	Non supply
	Headphone unit	Non supply
	Sub unit	Non supply
	Jack unit	Non supply

OTHERS

Mark	Symbol & Description		Part No.
⚠	AC power cord		RDG-064
⚠	FU1	Fuse 1.25A (20mm) 120V	REK-073
⚠ ★	T1	Power transformer (120V)	RTT-462

Power Switch Unit

SWITCH

Mark	Symbol & Description		Part No.
⚠ ★★	S1101	(Power switch)	RSA-068

Main Unit

SEMICONDUCTORS

Mark	Symbol & Description	Part No.
★★	IC301, IC303, IC304	M5218L
★★	IC302	HA12088NT
★★	Q311, Q316	DTC114ES
★★	Q308, Q313, Q314, Q321, Q324	2SA933S
⚠ ★★	Q312, Q317	2SA934
★★	Q102–Q110, Q202–Q210, Q305–Q307, Q309, Q310, Q315, Q318–Q320, Q323	2SC1740SLN
★★	Q101, Q201	2SC2240
★★	Q302, Q303	2SC3246
⚠ ★★	Q301	2SD1276
★★	Q304	2SD1302
⚠ ★★	D304, D305	MTZ13A
⚠ ★	D302	1B2C1-LC2
⚠ ★	D301	1B2Z1-LC2
⚠ ★	D303, D343, D345	1SR35-100A
★	D306–D324, D326–D342, D344, D346–D355	1SS254

SWITCHES

Mark	Symbol & Description		Part No.
★★	S308, S309	Push switch (TAPE POSITION)	RSG-166
★★	S302–S307	Push switch	RSG-186
★★	S301	Slide switch (REC-PB)	RSH-080

COILS, FILTER

Mark	Symbol & Description		Part No.
	L302	Oscillator coil	RTD-042
	L301	Line coil	RTF-101
	L103, L303	Peaking coil	RTF-120
	L104, L204	Peaking coil	RTF-129
	L102, L202	Coil (36MH)	RTF-155
	L105, L205	Trap coil	RTF-157
	F101, F201	MPX filter	RTF-165

CAPACITORS

Mark	Symbol & Description	Part No.
	C331, C332	CCDSL221K500
	C104, C204	CCPSL101J50
	C105, C205	CCPSL220J50
	C112, C212	CCPSL560J50
	C103, C203	CEANL2R2M50
	C129, C138, C229, C238	CEAR22M50
	C121, C126, C221, C226	CEAR68M50
	C110, C113, C116, C120, C131, C144, C210, C213, C216, C220, C231, C244, C328, C338	CEAS010M50
	C108, C115, C134, C135, C208, C215, C234, C235, C302, C303, C305, C337, C339, C341, C311	CEAS100M50
	C132, C232, C317, C319, C320	CEAS101M16
	C122, C127, C128, C222, C227, C228	CEAS2R2M50
	C333, C344, C346, C347	CEAS220M50
	C301, C310, C315	CEAS221M16
	C314	CEAS221M25
	C318	CEAS222M25
	C139, C239, C313, C334–C336, C340, C343, C345	CEAS3R3M50
	C102, C107, C202, C207, C304, C307, C309, C312, C323, C324	CEAS330M50
	C342	CEAS331M16
	C308	CEAS471M10
	C306	CEAS471M16
	C348, C316, C349	CKDYF103Z50
	C130, C230	CKPYB271K50
	C140, C240	CKPYB471K50
	C101, C201	CKPYB681K50
	C106, C118, C124, C206, C218, C224	CQMA103J50
	C109, C209	CQMA153K50
	C117, C217	CQMA182J50
	C119, C123, C219, C223	CQMA183J50
	C114, C143, C214, C243	CQMA222K50
	C136, C137, C236, C237, C325, C326, C142, C242	CQMA332J50
	C329	CQMA223J50
	C133, C233	CQMA392J50
	C141, C241	CQMA562J50
	C327	CQMA682K50
	C125, C225	CQMA823K50
	C330	CQPA822J400

RESISTORS

Note: When ordering resistors, convert the resistance value into code form, and then rewrite the part no. as before.

Mark	Symbol & Description	Part No.
★	VR305–VR306	VRTB6VS103
★	VR301, VR302	VRTB6VS104
★	VR101–VR103, VR201–VR203	VRTB6VS223
★	VR303	RCP-031
	VR304, VR307	VRTB6VS472
	R301, R312, R317, R318, R321–R323	RD1/2PMF□□□J
	R101, R104, R114, R118, R139, R145, R146, R201, R204, R214, R218, R239, R245, R246, R305, R319, R320, R328, R330, R333, R340, R339, R371, R381, R390, R391	RD1/4PM□□□J
	Other resistors	RD1/6PM□□□J

OTHERS

Mark	Symbol & Description	Part No.
	Fuse holder	RKR-025

Sub Unit

SEMICONDUCTORS

Mark	Symbol & Description	Part No.
★★	IC901	M5220L
★★	IC902	TC4011BP
★★	Q905	DTC114ES
★★	Q901–Q904	2SA933S
★★	Q701–Q703, Q801–Q803	2SC1740SLN
★	D901–D920	1SS254

CAPACITORS

Mark	Symbol & Description	Part No.
	C704, C804	CCPSL101J50
	C703, C803	CEANL100M16
	C707, C807	CEAR68M50
	C901, C903	CEAS100M50
	C904, C905	CEAS101M16
	C705, C805, C902	CEAS330M35
	C906	CKDYF103Z50
	C702, C802	CKPYB271K50
	C701, C801	CKPYB331K50
	C706, C806	CQMA103J50
	C709, C809	CQMA183J50
	C708, C808	CQMA393J50

RESISTORS

Note: When ordering res into code form, before.

Mark	Symbol & Descrip
	R927, R909, R91
	R907
	Other resistors

Jack Unit

RESISTORS

Mark	Symbol & Descrip
	R601, R602

OTHERS

Mark	Symbol & Descrip
	JA601 Pin jack (

Display Unit

SEMICONDUCTORS

Mark	Symbol & Descrip
★★	IC401
★	D403–D405, D40
	D414
★	D412
★	D401, D402, D40

CAPACITORS

Mark	Symbol & Descrip
	C401, C402
	C403

RESISTORS

Note: When ordering re into code form, before.

Mark	Symbol & Descrip
	VR401 Slide volu
	R407
	Other resistors

Door Display 1 Unit

SEMICONDUCTORS

Mark	Symbol & Descrip
★	D1201, D1202 L

COILS, FILTER

Mark	Symbol & Description	Part No.
	L302 Oscillator coil	RTD-042
	L301 Line coil	RTF-101
	L103, L303 Peaking coil	RTF-120
	L104, L204 Peaking coil	RTF-129
	L102, L202 Coil (36MH)	RTF-155
	L105, L205 Trap coil	RTF-157
	F101, F201 MPX filter	RTF-165

CAPACITORS

Mark	Symbol & Description	Part No.
	C331, C332	CCDSL221K500
	C104, C204	CCPSL101J50
	C105, C205	CCPSL220J50
	C112, C212	CCPSL560J50
	C103, C203	CEANL2R2M50
	C129, C138, C229, C238	CEAR22M50
	C121, C126, C221, C226	CEAR68M50
	C110, C113, C116, C120, C131, C144, C210, C213, C216, C220, C231, C244, C328, C338	CEAS010M50
	C108, C115, C134, C135, C208, C215, C234, C235, C302, C303, C305, C337, C339, C341, C311	CEAS100M50
	C132, C232, C317, C319, C320	CEAS101M16
	C122, C127, C128, C222, C227, C228	CEAS2R2M50
	C333, C344, C346, C347	CEAS220M50
	C301, C310, C315	CEAS221M16
	C314	CEAS221M25
	C318	CEAS222M25
	C139, C239, C313, C334–C336, C340, C343, C345	CEAS3R3M50
	C102, C107, C202, C207, C304, C307, C309, C312, C323, C324	CEAS330M50
	C342	CEAS331M16
	C308	CEAS471M10
	C306	CEAS471M16
	C348, C316, C349	CKDYF103Z50
	C130, C230	CKPYB271K50
	C140, C240	CKPYB471K50
	C101, C201	CKPYB681K50
	C106, C118, C124, C206, C218, C224	CQMA103J50
	C109, C209	CQMA153K50
	C117, C217	CQMA182J50
	C119, C123, C219, C223	CQMA183J50
	C114, C143, C214, C243	CQMA222K50
	C136, C137, C236, C237, C325, C326, C142, C242	CQMA332J50
	C329	CQMA223J50
	C133, C233	CQMA392J50
	C141, C241	CQMA562J50
	C327	CQMA682K50
	C125, C225	CQMA823K50
	C330	CQPA822J400

RESISTORS

Note: When ordering resistors, convert the resistance value into code form, and then rewrite the part no. as before.

Mark	Symbol & Description	Part No.
★	VR305–VR306	VRTB6VS103
★	VR301, VR302	VRTB6VS104
★	VR101–VR103, VR201–VR203	VRTB6VS223
★	VR303	RCP-031
	VR304, VR307	VRTB6VS472
	R301, R312, R317, R318, R321–R323	RD1/2PMF□□□J
	R101, R104, R114, R118, R139, R145, R146, R201, R204, R214, R218, R239, R245, R246, R305, R319, R320, R328, R330, R333, R340, R339, R371, R381, R390, R391	RD1/4PM□□□J
	Other resistors	RD1/6PM□□□J

OTHERS

Mark	Symbol & Description	Part No.
	Fuse holder	RKR-025

Sub Unit

SEMICONDUCTORS

Mark	Symbol & Description	Part No.
★★	IC901	M5220L
★★	IC902	TC4011BP
★★	Q905	DTC114ES
★★	Q901–Q904	2SA933S
★★	Q701–Q703, Q801–Q803	2SC1740SLN
★	D901–D920	1SS254

CAPACITORS

Mark	Symbol & Description	Part No.
	C704, C804	CCPSL101J50
	C703, C803	CEANL100M16
	C707, C807	CEAR68M50
	C901, C903	CEAS100M50
	C904, C905	CEAS101M16
	C705, C805, C902	CEAS330M35
	C906	CKDYF103Z50
	C702, C802	CKPYB271K50
	C701, C801	CKPYB331K50
	C706, C806	CQMA103J50
	C709, C809	CQMA183J50
	C708, C808	CQMA393J50

RESISTORS

Note: When ordering resistors, convert the resistance value into code form, and then rewrite the part no. as before.

Mark	Symbol & Description	Part No.
	R927, R909, R915, R919	RD1/4PM□□□J
	R907	RD1/2PMF□□□J
	Other resistors	RD1/6PM□□□J

Jack Unit

RESISTORS

Mark	Symbol & Description	Part No.
	R601, R602	RD1/4PM102J

OTHERS

Mark	Symbol & Description	Part No.
	JA601 Pin jack (4P)	RKB-020

Display Unit

SEMICONDUCTORS

Mark	Symbol & Description	Part No.
★★	IC401	IR2E27A
★	D403–D405, D408–D410, D413, D414	SEL4214S
★	D412	SEL4414E
★	D401, D402, D406, D407, D411	SEL4914A X/Y

CAPACITORS

Mark	Symbol & Description	Part No.
	C401, C402	CEAS100M50
	C403	CEAS330M35

RESISTORS

Note: When ordering resistors, convert the resistance value into code form, and then rewrite the part no. as before.

Mark	Symbol & Description	Part No.
	VR401 Slide volume	RCW-013
	R407	RD1/4PM561J
	Other resistors	RD1/6PM□□□J

Door Display 1 Unit

SEMICONDUCTORS

Mark	Symbol & Description	Part No.
★	D1201, D1202 LED	MU03-3201

RESISTOR

Note: When ordering resistors, convert the resistance value into code form, and then rewrite the part no. as before.

Mark	Symbol & Description	Part No.
	R1201, R1202	RD1/4PM102J
	R1203, R1204	RD1/6PM681J

Door Display 2 Unit

SEMICONDUCTORS

Mark	Symbol & Description	Part No.
★	D1301, D1302 LED	MU03-3201

RESISTOR

Note: When ordering resistors, convert the resistance value into code form, and then rewrite the part no. as before.

Mark	Symbol & Description	Part No.
	R1301, R1302	RD1/4PM102J
	R1303, R1304	RD1/8PM681J

Transistor Unit

SEMICONDUCTOR

Mark	Symbol & Description	Part No.
⚠ ★★	Q1001	2SD1276

Head Phone Unit

RESISTOR

Note: When ordering resistors, convert the resistance value into code form, and then rewrite the part no. as before.

Mark	Symbol & Description	Part No.
	R501, R502	RD1/4PM470J
	R503, R504	RD1/6PM681J

OTHERS

Mark	Symbol & Description	Part No.
	JA501 Headphone jack	RKN-096

11. ADJUSTMENTS

11-1. MECHANICAL ADJUSTMENT

Door Damping Check and Adjustment

Set the door spring of DECK 1 side to position (B) as shown in Fig. 11-2. Then, erect the front panel A Assembly vertically as shown in Fig. 11-1. Open the doors of DECK 1 and DECK 2 at the same time. At this point, confirm that the difference between opening degree of both doors is within 17mm when one side of the door is opened completely. When this standard is not satisfied, change the door spring installation position of Deck 1 and perform the adjustment as follows:

- When the opening action of the door of DECK 1 is later than that of DECK 2: Change (B) in Fig. 11-2 to that in (A).
- When the opening action of the door of DECK 1 is faster than that of DECK 2: Change (B) in Fig. 11-2 to that in (C).

(DECK 1)

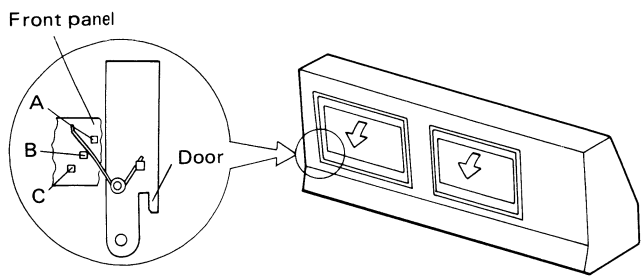


Fig. 11-2

Fig. 11-1

Tape Speed Adjustment

1. Load the STD-301 test tape into DECKs 1 and 2.
2. Short circuit the TP.16 (×2 ADJ) and GND, and then Put DECK 1 into (double-speed) PLAY state, and adjust with VR307 so that the frequency 6000Hz±10Hz.
3. Stop the DECK 1 operation and put DECK 2 into (double-speed) PLAY state, and adjust with VR304 so that the frequency becomes ±10Hz against that of DECK 1.
4. After releasing the short circuit mentioned in step 2, put DECK 1 into normal speed PLAY state, and adjust with VR306 so that the frequency of it becomes 3000Hz±5Hz.
5. Stop the DECK 1 operation and put DECK 2 into normal speed PLAY state, and adjust with VR305 so that the frequency becomes ±5Hz against DECK 1.

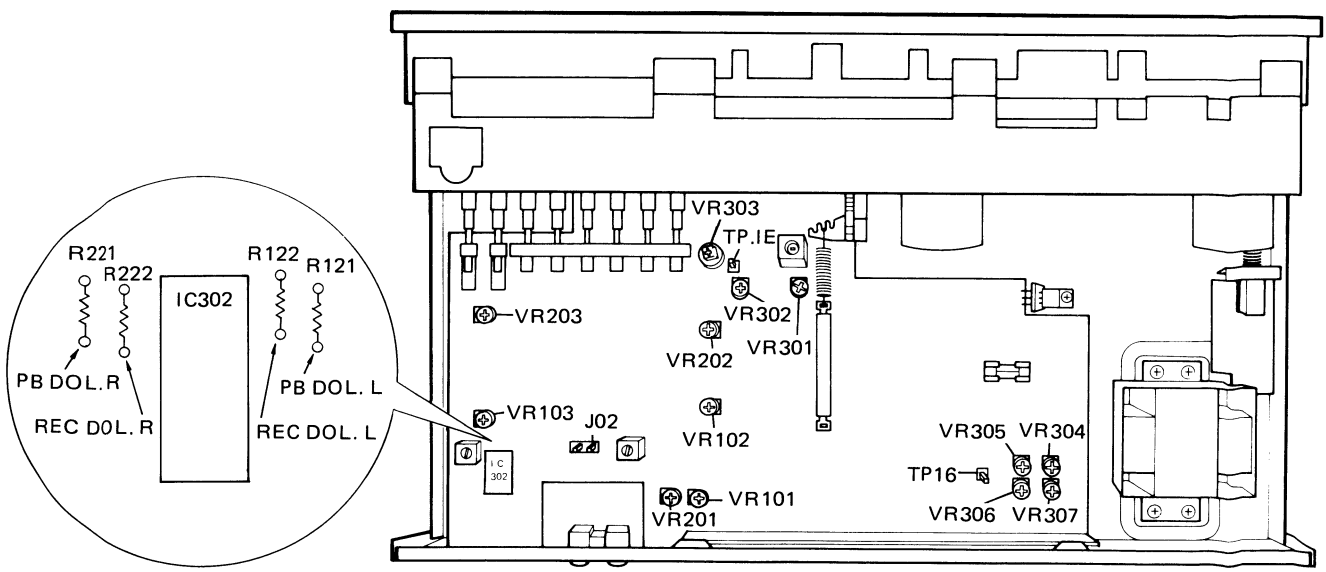


Fig. 11-3 Adjustment location

Recording/Playback sliding SW stroke adjustment (Confirmation of noise generation when REC → STOP)

While loading the STD-605A onto DECK 2, confirm whether it generates noise or not when it is put into STOP state from REC state.

In the event noise is generated, replace the SW connection spring by applying it as shown in Fig. 11-4. (Be sure that the slide SW is fully pulled when in the REC state, and it has returned completely when in the STOP state.)

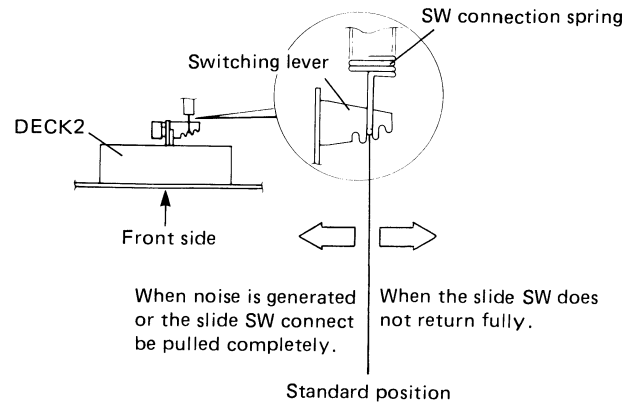

SW connection spring
Switching lever
DECK2
Front side
When noise is generated or the slide SW connect be pulled completely.
When the slide SW does not return fully.
Standard position

Fig. 11-4 Recording/Playback sliding SW stroke adjustment (Confirmation of noise generation when REC → STOP)

11.2 ELECTRICAL ADJUSTMENTS

Adjustment Conditions

1. The mechanical adjustments must be completed first.
2. The head must be cleaned and demagnetized.
3. Allow the deck to age for at least a few minutes before commencing any electrical adjustments.
4. The reference signals is 0dBv=1Vrms.
5. Connect a 50 kilo-ohm (or between 47 to 52 kilo-ohm) load resistance to the OUTPUT terminals.
6. Unless otherwise specified, the switches listed below are left in the positions indicated.
   DOLBY NR : OFF
   TAPE SELECTOR : NORM

Test Tapes

STD-331B : Playback adjustments (See Fig. 11-5)
STD-608A : NORMAL blank tape
STD-620 : CrO_2 blank tape
STD-610 : METAL blank tape

List of Adjustments

Deck I

1. Head azimuth adjustment.
2. Playback frequecy response check.
3. Playback level adjustment.
4. Playback time constant switching check.

Deck II

1. Head azimuth adjustment.
2. Playback frequency response check.
3. Playback level adjustment.
4. Playback time constant switching check.
   Erasure current adjustment
6. Recording bias adjustment.
7. Recording level adjustment.
8. Recording and playback frequency response check.
9. Copy mode frequency response check.
10. Level meter check.

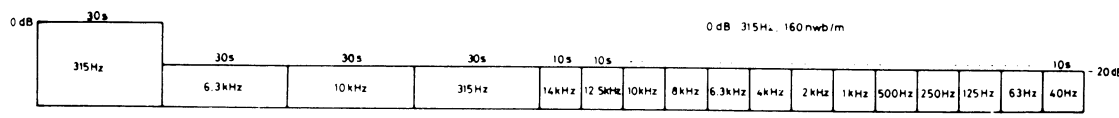
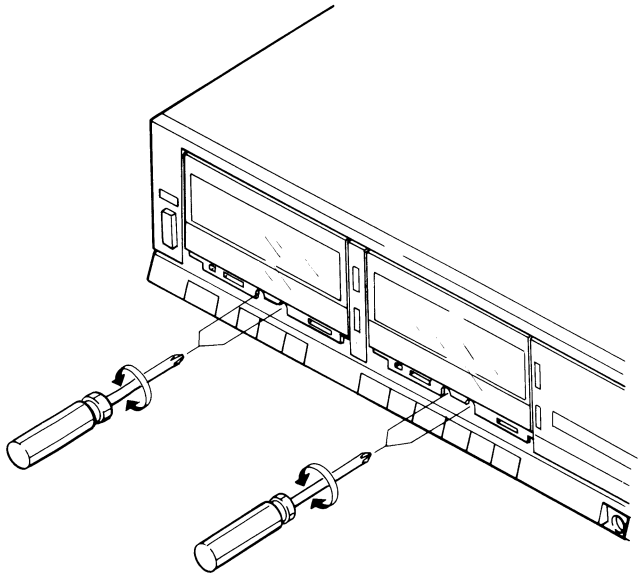
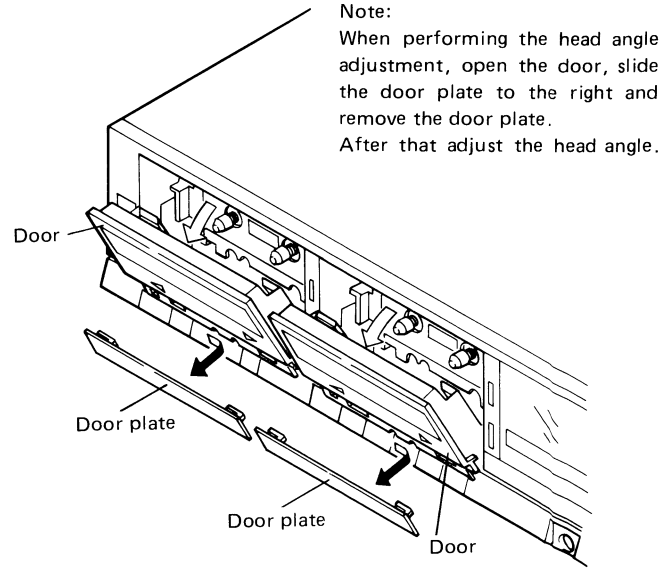


Fig. 11-5 Contents of the test tape STD-331B





Note:
When performing the head angle adjustment, open the door, slide the door plate to the right and remove the door plate.
After that adjust the head angle.

Fig. 11-6 Head azimuth adjustment

Test tape	STD-331B
Tape selector	NORM
DOLBY NR switch	OFF

- Due to "edge effect", compensate the right changed by −1dB at 63Hz.

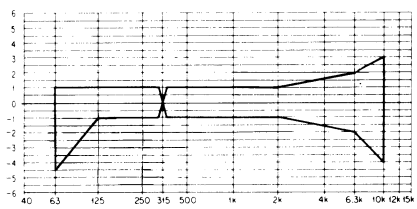


Fig. 11-7 Allowable playback frequency response zone

Deck I

1. Head Azimuth Adjustment
- Turn VR102 and VR202 to mechanical center positions.

No.	Mode	Input signal & test tape	Adjustment location	Measuring location	Adjustment value	Remarks
1	PLAY	Play the 10kHz/–20dB section of the STD-331B test tape.	Head azimuth adjustment screw. (FWD, REV) (See Fig. 11-6)	LINE OUT	Maximum playback signal level.	
2	STOP	Lock the screw with screw lock after completing the adjustment.				

2. Playback Frequency Response Check

No.	Mode	Input signal & test tape	Adjustment location	Measuring location	Adjustment value	Remarks
1	PLAY	STD-331B	–	LINE OUT	The allowable zone shown in Fig. 11-7 is to be satisfied.	

3. Playback Level Adjustment
- This adjustment determines the DOLBY NR level, and must be performed with great care.

No.	Mode	Input signal & test tape	Adjustment location	Measuring location	Adjustment value	Remarks
1	PLAY	Play the 315Hz/0dB section of the STD-331B test tape.	VR101 (Lch) VR201 (Rch)	PB DOL, L (Lch) PB DOL, R (Rch)	–13.5dBv	

4. Playback Time Constant Switching Check
- Put the deck into playback mode with no cassette loaded.
- Check that the noise level changes at the line playback output terminals when the TAPE SELECTOR switch is changed.

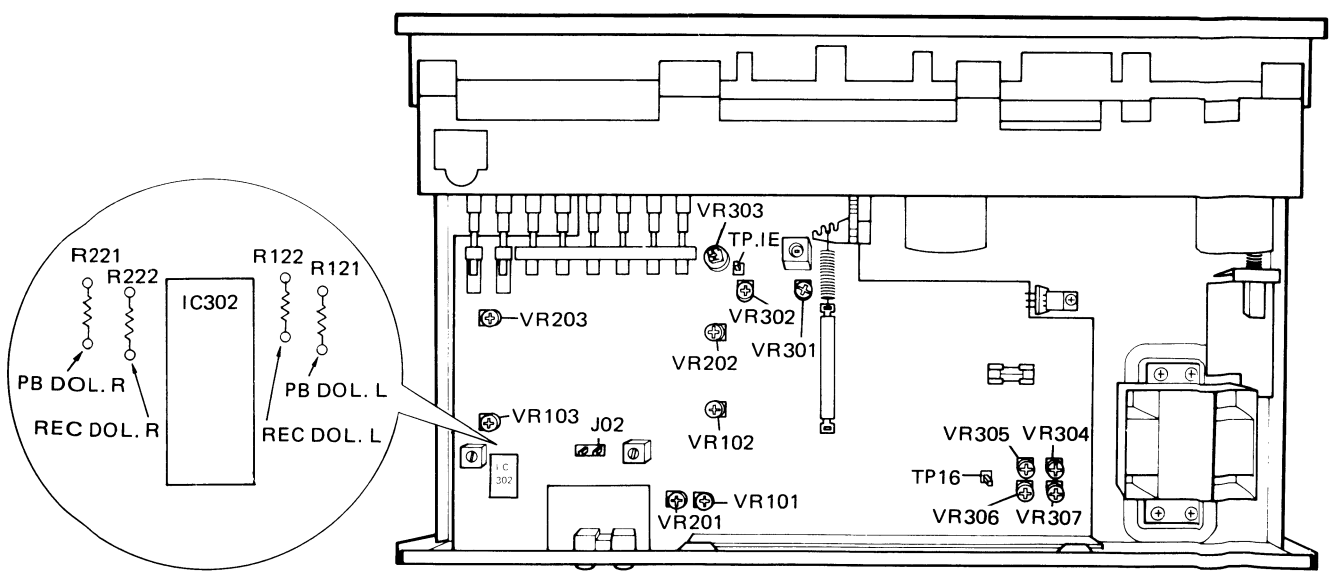


Fig. 11-8 Adjustments locations

Deck II

1. Head Azimuth Adjustment
- Turn VR101 and VR201 to mechanical center positions.

No.	Mode	Input signal & test tape	Adjustment location	Measuring location	Adjustment value	Remarks
1	PLAY	Play the 10kHz/−20dB section of the STD-331B test tape.	Head azimuth adjustment screw. (FWD, REV) (See Fig. 11-6).	LINE OUT	Maximum playback signal level.	
2	STOP	Lock the screw with screw lock after completing the adjustment.				

2. Playback frequency response check

No.	Mode	Input signal & test tape	Adjustment location	Measuring location	Adjustment value	Remarks
1	PLAY	STD-331B	–	LINE OUT	The allowable zone showing in Fig. 11-7 is to be satisfied.	

3. Playback Level Adjustment
- The adjustment determines the DOLBY NR level, and must be performed with great care.

No.	Mode	Input signal & test tape	Adjustment location	Measuring location	Adjustment value	Remarks
1	PLAY	Play the 315HZ/0dB section of the STD-331B test tape.	VR102 (Lch) VR202 (Rch)	PB DOL, L (Lch) PB DOL, R (Rch)	−13.5dBv	

4. Playback Time Constant Switching Check
- Put the deck into playback mode with no cassette loaded.
- Check that the noise level changes at the line playback output terminals when the TAPE SELECTOR switch is changed.

5. Erasure Current Adjustment

No.	Mode	Input signal & test tape	Adjustment location	Measuring location	Adjustment value	Remarks
1	REC	Load the STD-610 standard tape without an input signal being applied.	VR303	TP.IE	180mV AC	(FWD)

6. Recording Bias Adjustment
- After the adjustment, caution should be exercised so as not to become under bias by checking the distortion rate.

No.	Mode	Input signal & test tape	Adjustment location	Measuring location	Adjustment value	Remarks
1	STOP	Set the TAPE SELECTOR switch to the NORM position.				
2	REC	STD-608A (NORM) −20dB	VR301 (Lch) VR302 (Rch)	LINE OUT	+1.0dB±0.5dB (6.3k/315Hz)	

7. Recording Level Adjustment

No.	Mode	Input signal & test tape	Adjustment location	Measuring location	Adjustment value	Remarks
1	STOP	Set the TAPE SELECTOR switch to the NORM position.				
2	REC PAUSE	Apply a 315Hz/−10dBv (316mV) signal to the Line Input terminals.	Rec Level control	REC DOL, L (Lch) REC DOL, R (Rch)	−13.5dBv	
3		Set the DOLBY NR switch to the ON position. (DOLBY B)				
4	REC/ PLAY	Record the above signal level onto the STD-608A test tape, and playback.	VR103 (Lch) VR203 (Rch)	REC DOL, L (Lch) REC DOL, R (Rch)	−13.5dBv	

5		Set the TAPE SELECTOR switch to the CrO_2 position.				
6	REC/ PLAY	Record the above signal onto the STD-620 test tape, and playback.	Confirm	REC DOL, L (Lch) REC DOL, R (Rch)	−13.5dBv±1.5dB	
7		Set the TAPE SELECTOR switch to the METAL position.				
8	REC/ PLAY	Record the above signal onto the STD-610 test tape, and playback.	Confirm	REC DOL, L (Lch) REC DOL, R (Rch)	−13.5dBv±1.5dB	

8. Recording and Playback Frequency Response Check

No.	Mode	Input signal & test tape	Adjustment location	Measuring location	Adjustment value	Remarks
1	STOP	Set the TAPE SELECTOR switch to the NORM position.				
2	REC/ PLAY	STD-608A (NORM) NR: OFF/ON (TYPE B, C)	−	LINE OUT	The allowable zone shown in Fig. 11-9 is to be satisfied.	
3	Set the TAPE SELECTOR switch to the CrO_2 position.					
4	REC/ PLAY	STD-620 (CrO_2) NR: OFF/ON (TYPE B, C)	−	LINE OUT	The allowable zone show in Fig. 11-9 is to be satisfied.	
5	STOP	Set the TAPE SELECTOR switch to METAL position.				
6	REC/ PLAY	STD-610 (METAL) NR: OFF/ON (TYPE B, C)	−	LINE OUT	The allowable zone shown in Fig. 11-9 is to be satisfied.	

9. Copy Mode Frequency Response Check

- Playback after making copy should be carried out by on the REC/PB side.

No.	Mode	Input signal & test tape	Adjustment location	Measuring location	Adjustment value	Remarks
1	STOP	Set the TAPE SELECTOR switch to the NORM position.				
2	COPY & HIGH SPEED	Load the STD-331B test tape into deck I, and the STD-608A test tape into deck II.	−	−	Copy recorded signal from STD-331B (at both normal and double speeds).	
3	PLAY (Deck II)	Play the signal recorded on the STD-608A test tape in the previous adjustment procedure.	−	LINE OUT	The allowable zone shown in Fig. 11-10 is to be satisfied.	
4	STOP	Set the TAPE SELECTOR switch to the CrO_2 position.				
5	Load the STD-620 test tape into deck II, and repeat steps 1 and 2 to check that the allowable zone shown in Fig. 11-10 is satisfied.					
6	STOP	Set the TAPE SELECTOR switch to the METAL position.				
7	Load the STD-610 test tape into deck II, and repeat steps 1 and 2 to check that the allowable zone shown in Fig. 11-10 is satisfied.					

10. Level Meter Check

No.	Mode	Input signal & test tape	Adjustment location	Measuring location	Adjustment value	Remarks
1	REC-PAUSE	Apply a 315Hz/−10dBv (316mV) signal to the LINE INPUT terminals.	REC LEVEL control	REC DOL, L (Lch) REC DOL, R (Rch)	Check that the level meters "0dB" light up within −13.5dBv±2dB of the signal output level.	

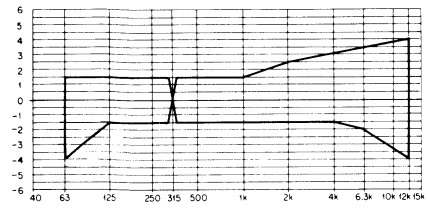
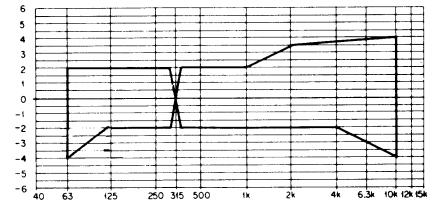
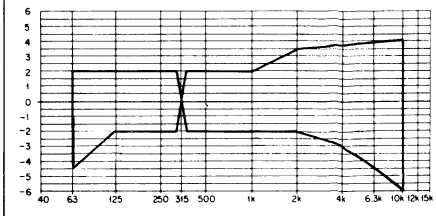
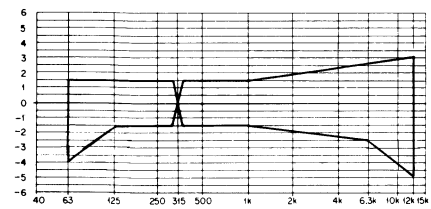
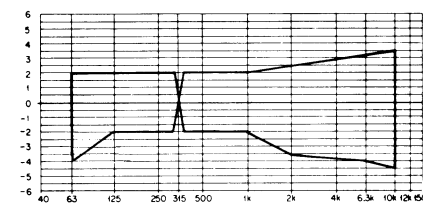
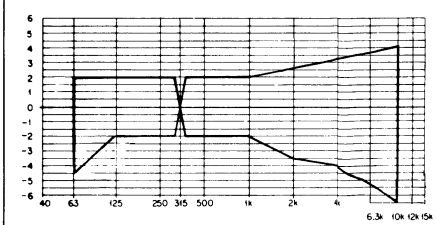
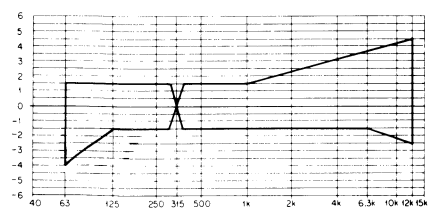
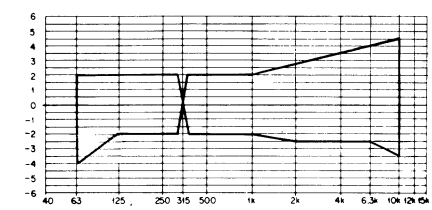
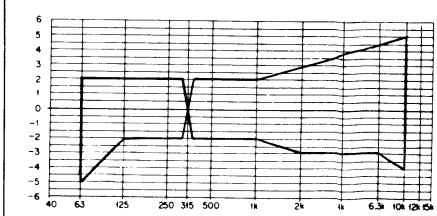
Test Tape : STD-608A		
TAPE SELECTOR : NORM		
DOLBY NR : OFF	DOLBY NR : B-TYPE ON	DOLBY NR : C-TYPE ON
		
Test Tape : STD-620		
TAPE SELECTOR : CrO_2		
DOLBY NR : OFF	DOLBY NR : B-TYPE ON	DOLBY NR : C-TYPE ON
		
Test Tape : STD-610		
TAPE SELECTOR : METAL		
DOLBY NR : OFF	DOLBY NR : B-TYPE ON	DOLBY NR : C-TYPE ON
		

Fig. 11-9 Allowable recording and playback frequency response zone

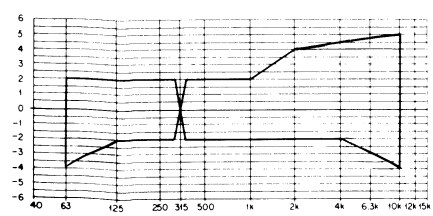
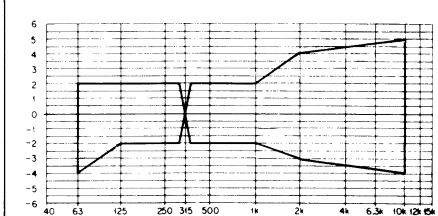
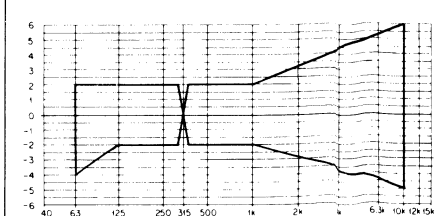
Test Tape : STD-608A	Test Tape : STD-620	Test Tape : STD-610
TAPE SELECTOR : NORM	TAPE SELECTOR : CrO_2	TAPE SELECTOR : METAL
DOLBY NR : OFF	DOLBY NR : OFF	DOLBY NR : OFF
		

Fig. 11-10 Copy mode allowable recording and playback frequency response zone

11. RÉGLAGES MÉCANIQUES

11.1 RÉGLAGE MÉCANIQUE

Contrôle et Réglage de l'Amortisseur de Trappe

Placer le ressort de trappe du côté de la platine 1 sur la position (B) comme indiqué dans la Fig. 11-2. Redresser ensuite verticalement l'ensemble A du panneau avant comme indiqué dans la Fig. 11-1. Ouvrir les trappes de la platine 1 et de la platine 2 en même temps. A ce point, s'assurer que la différence entre le degré d'ouverture des deux trappes est de moins de 17mm lorsqu'un côté de la trappe est complètement ouvert. Lorsque cette valeur est différente de la valeur standard mentionnée, changer la position de mise en place du ressort de trappe de la platine 1 et effectuer un réglage comme suit:

- Lorsque l'action d'ouverture de la trappe de la platine 1 se fait plus lentement que celle de la platine 2: Changer (B) dans la Fig. 11-2 à (A).
- Lorsque l'action d'ouverture de la trappe de la platine 1 se fait plus rapidement que celle de la platine 2: Changer (B) dans la Fig. 11-2 à (C).

(Platine 1)

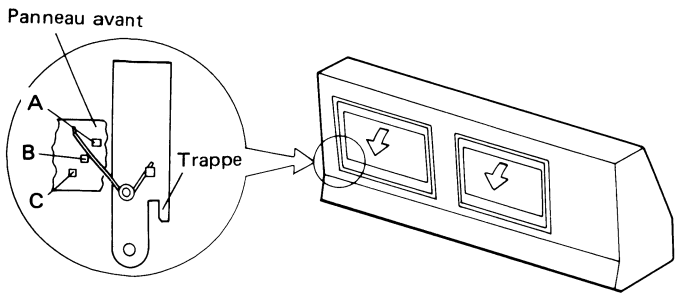


Fig. 11-2

Fig. 11-1

Réglage de la vitesse de bande

1. Mettre la bande d'essai STD-301 en place dans les platines 1 et 2.
2. Court-circuiter le TP.16 (×2 ADJ) et GND (masse), puis mettre la platine 1 dans le mode de reproduction (vitesse double) et ajuster avec VR307 de manière à ce que la fréquence atteigne 6000Hz±10Hz.
3. Arrêter la platine 1 et mettre la platine 2 dans le mode de reproduction à vitesse double, puis ajuster avec VR304 de manière à ce que la fréquence devienne celle de la platine 1±10Hz.
4. Après avoir retiré le court-circuit mentionné à l'étape 2, mettre la platine 1 en mode de reproduction à vitesse normale et ajuster avec VR306 pour que sa fréquence devienne 3000 Hz±5Hz.
5. Arrêter le fonctionnement de la platine 1 et mettre la platine 2 en mode de reproduction à vitesse normale, puis ajuster avec VR305 pour que la fréquence devienne celle de la platine 1 ±5Hz.

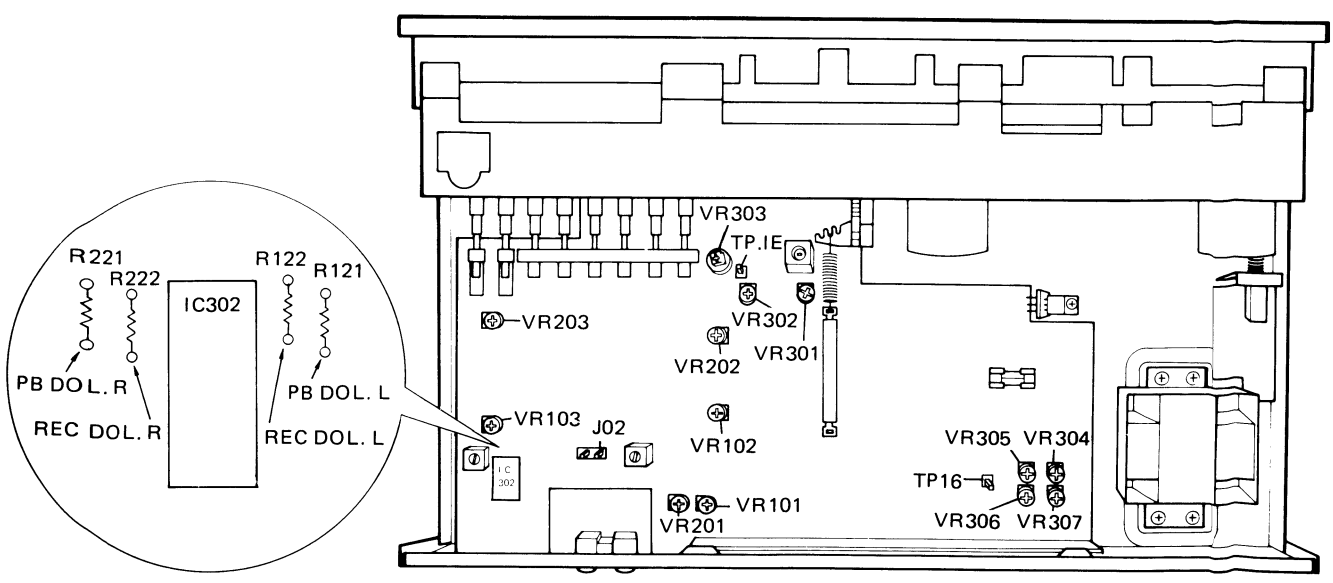


Fig. 11-3 Réglage de la vitesse de bande

Réglage de course de curseur d'enregistrement/ reproduction (confirmation de génération de bruit lorsque REC → STOP)

En chargeant la STD-605A dans la platine 2, vérifier si un bruit est généré ou non lorsqu'elle est mise à l'état d'arrêt de l'état d'enregistrement.

Si un bruit parasite est généré, remplacer le ressort de connexion de curseur en la plaçant de la manière indiquée dans la Fig. 11-4 (S'assurer que le curseur est bien complètement tiré dans l'état d'enregistrement et qu'il retourne bien complètement à l'état d'arrêt.)

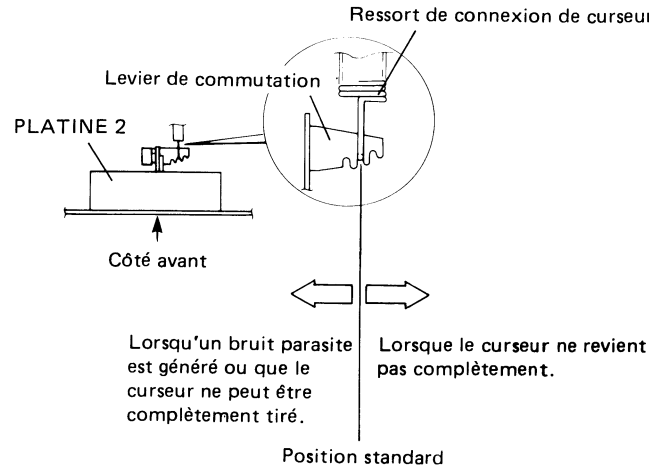

Ressort de connexion de curseur
Levier de commutation
PLATINE 2
Côté avant
Lorsqu'un bruit parasite est généré ou que le curseur ne peut être complètement tiré.
Lorsque le curseur ne revient pas complètement.
Position standard

Fig. 11-4 Réglage de course de curseur d'enregistrement/ reproduction (confirmation de génération de bruit lorsque REC → STOP)

11.2 RÉGLAGES ÉLECTRIQUES

Conditions nécessaires pour réaliser les réglages

1. Tous les réglages mécaniques doivent avoir été faits au préalable.
2. La tête magnétique doit être propre et démagnétisée.
3. Laisser chauffer les platines pendant quelques minutes avant de commencer les réglages électriques.
4. Caler le signal de référence à 0dBv=1V effi.
5. Raccorder une résistance de charge de 50 K-ohms (ou dans les limites comprises entre 47 à 52 K-ohms) aux bornes de sortie de ligne de lecture "OUTPUT".
6. A moins d'une indication contraire, les commutateurs mentionnés ci-dessous doivent se trouver sur les positions indiquées.
   DOLBY NR : OFF
   TAPE SELECTOR : NORM

Bandes d'étalonnage

STD-331B : Réglages de lecture (voir la Fig. 11-5)
STD-608A : Bande vierge ordinaire (NORMAL)
STD-620 : Bande vierge au chrome (CrO_2)
STD-610 : Bande vierge métallique (METAL)

Liste des réglages

Platine I

1. Réglage d'azimut de tête magnétique
2. Vérification de la réponse en fréquence de lecture
3. Réglage du niveau de lecture
4. Contrôle de commutation de constante de temps de lecture

Platine II

1. Réglage d'azimut de tête magnétique
2. Vérification de la réponse en fréquence de lecture
3. Réglage du niveau de lecture
4. Contrôle de commutation de constante de temps de lecture
5. Réglage du courant d'effacement
6. Réglage de la polarisation d'enregistrement
7. Réglage du niveau d'enregistrement
8. Vérification de la réponse en fréquence de lecture et d'enregistrement
9. Contrôle de réponse en fréquence de mode de duplication
10. Vérification de l'indicateur de niveau

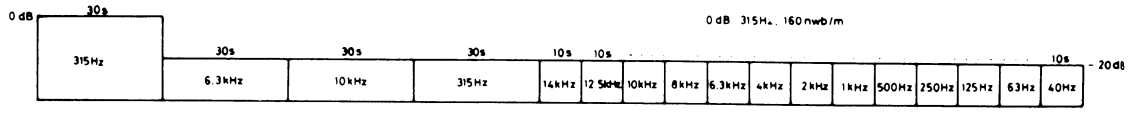
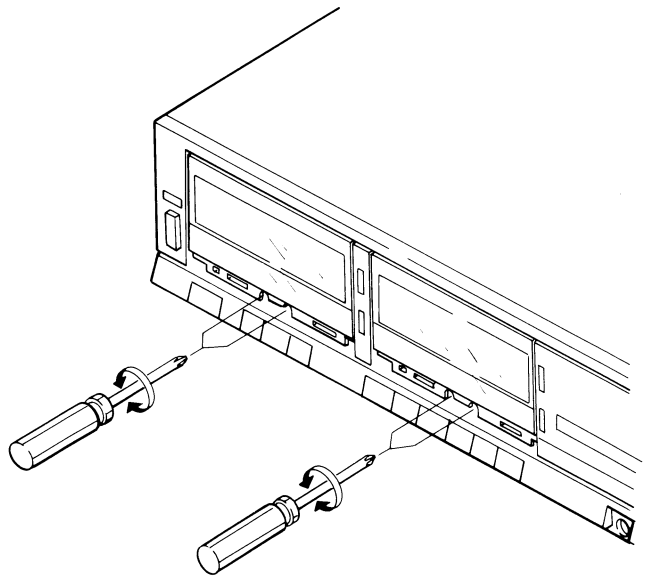


Fig. 11-5 Fréquences enregistrées sur la bande d'étalonnage STD-331B



NOTE:
Lors du réglage de l'angle de tête, ouvrir la trappe, faire glisser la plaque de trappe vers la droite et retirer la plaque de trappe. Après cela, ajuster l'angle de tête.

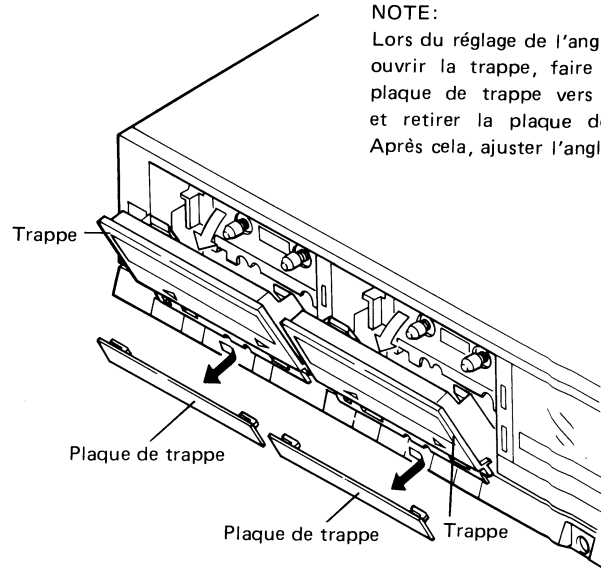


Fig. 11-6 Réglage d'azimut de tête

Bande d'étalonnage	STD-331B
Position du sélecteur de bande	NORM
Position du commutateur DOLBY NR	OFF

- Le canal droit doit être corrigé de −1dB sous 63Hz de façon à compenser l'effet marginal.

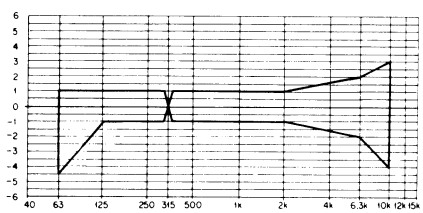


Fig. 11-7 Zone de tolérance de réponse en fréquence de lecture

Platine I

1. Réglage d'azimut de tête magnétique
- Régler les résistances variables VR101 et VR201 de façon à obtenir la position centrale mécanique.

No.	Mode	Signal appliqué et bande d'étalonnage	Emplacement du réglage	Emplacement de la borne de mesure	Valeur relevée	Observations
1	LECTURE	Lire le passage préenregistré de 10kHz/–20dB de la bande d'étalonnage STD-331B.	Vis de réglage d'azimut de tête, (FWD, REV)(voir la figure 11-5).	Sortie de ligne (LINE OUT)	Niveau maximum du signal de lecture.	
2	ARRÊT	Freiner la vis de réglage à l'aide d'un produit spécial lorsque le réglage est terminé.				

2. Vérification de la réponse en fréquence de lecture

No.	Mode	Signal appliqué et bande d'étalonnage	Emplacement du réglage	Emplacement de la borne de mesure	Valeur relevée	Observations
1	LECTURE	STD-331B	–	Sortie de ligne (LINE OUT)	La zone autorisée indiquée à la Fig. 11-7 est à satisfaire.	

3. Réglage du niveau de lecture
- Ce réglage servant à étalonner le niveau du DOLBY NR doit être exécuté avec une grande précision.

No.	Mode	Signal appliqué et bande d'étalonnage	Emplacement du réglage	Emplacement de la borne de mesure	Valeur relevée	Observations
1	LECTURE	Lire le passage préenregistré de 315Hz/0dB de la bande d'étalonnage STD-331B.	VR101 (canal gauche) VR201 (canal droit)	PB. Dol, L (canal gauche) PB. Dol, R (canal droit)	–13,5dBv	

4. Contrôle de commutation de constante de temps de lecture
- Mettre la platine en mode de lecture sans cassette chargée.

- S'assurer que le niveau de bruit change aux bornes de sortie de lecture de ligne lorsque la position du sélecteur de bande (TAPE SELECTOR) est changée.

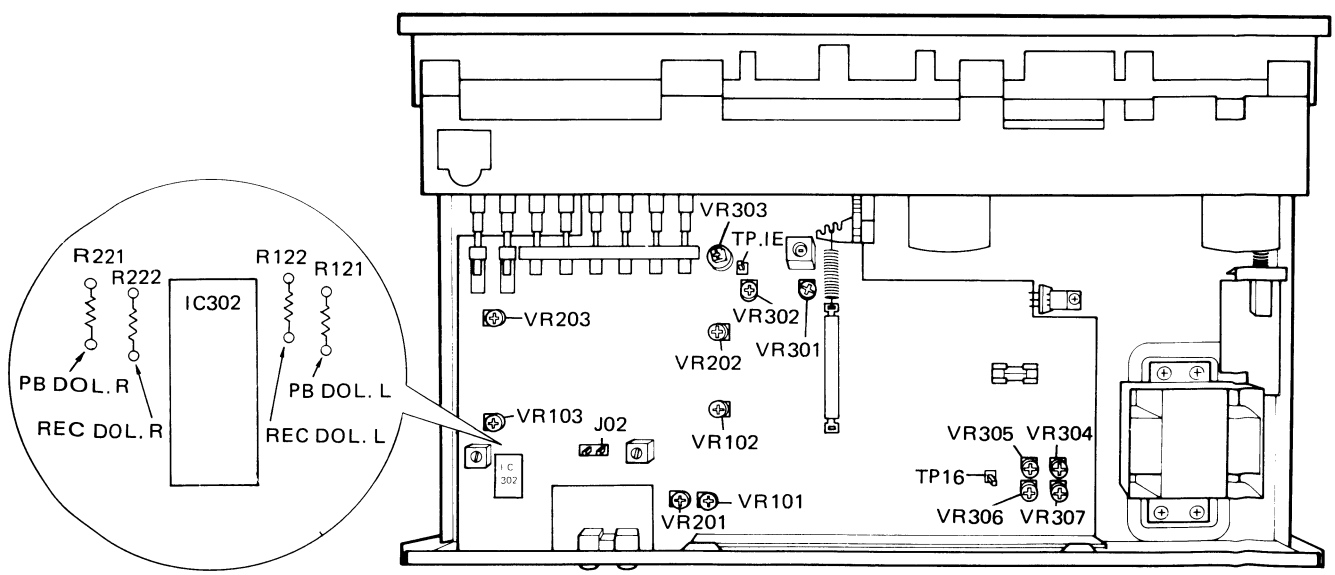


Fig. 11-8 Emplacement des réglages

Platine II

1. Réglage d'azimut de tête magnétique
- Régler les résistances variables VR101 et VR201 de façon à obtenir la position centrale mécanique.

No.	Mode	Signal appliqué et bande d'étalonnage	Emplacement du réglage	Emplacement de la borne de mesure	Valeur relevée	Observations
1	LECTURE	Lire le passage préenregistré de 10kHz/–20dB de la bande d'étalonnage STD-331B.	Vis de réglage d'azimut de tête. (FWD, REV)(voir la Fig. 11-6).	Bornes de sortie (OUTPUT).	Niveau maximum du signal de lecture.	
2	ARRÊT	Freiner la vis de réglage à l'aide d'un produit spécial lorsque le réglage est terminé.				

2. Vérification de la réponse en fréquence de lecture

No.	Mode	Signal appliqué et bande d'étalonnage	Emplacement du réglage	Emplacement de la borne de mesure	Valeur relevée	Observations
1	LECTURE	STD-331B	–	Sortie de ligne (LINE OUT)	La zone autorisée indiquée à la Fig. 11-7 est à satisfaire.	

3. Réglage du niveau de lecture
- Ce réglage servant à étalonner le niveau de DOLBY NR doit être exécuté avec une grande précision.

No.	Mode	Signal appliqué et bande d'étalonnage	Emplacement du réglage	Emplacement de la borne de mesure	Valeur relevée	Observations
1	LECTURE	Lire le passage préenregistré de 315Hz/0dB de la bande d'étalonnage STD-331B.	**VR102 (canal gauche)** **VR202 (canal droit)**	PB. Dol, L (canal gauche) PB. Dol, R (canal droit)	–13,5dBv	

4. Contrôle de commutation de constante de temps de lecture
- Mettre la platine en mode de lecture sans cassette chargée.
- S'assurer que le niveau de bruit change aux bornes de sortie de lecture de ligne lorsque la position du sélecteur de bande (TAPE SELECTOR) est changée.

5. Réglage du courant d'effacement

No.	Mode	Signal appliqué bande d'étalonnage	Emplacement du réglage	Emplacement de la borne de mesure	Valeur relevée	Observations
1	EN-REGISTRE-MENT/ LECTURE	Charger la bande standard STA-610 sans appliquer de signal d'entrée.	VR303	TP.IE	180mV AC	(FWD)

6. Réglage de la polarisation d'enregistrement
- Après le réglage, vérifier la déformation et s'assurer de ne pas tomber en-dessous de la valeur de polarisation.

No.	Mode	Signal appliqué et bande d'étalonnage	Emplacement du réglage	Emplacement de la borne de mesure	Valeur relevée	Observations
1	ARRÊT	Placer le sélecteur de bande (TAPE SELECTOR) en position NORM.				
2	EN-REGISTRE-MENT	STD-608A (NORM) –20dB	**VR301 (canal gauche)** **VR302 (canal droit)**	Sortie de ligne (LINE OUT)	+1,0dB±0,5dB (6,3k/315Hz)	

7. Réglage du niveau d'enregistrement

No.	Mode	Signal appliqué et bande d'étalonnage	Emplacement du réglage	Emplacement de la borne de mesure	Valeur relevée	Observations
1	ARRÊT	Placer le sélecteur de bande (TAPE SELECTOR) en position NORM.				
2	PAUSE A L'EN-REGISTRE-MENT	Appliquer un signal de 315 Hz/–10dBv (316mV) aux bornes d'entrée de ligne (LINE INPUT).	Potentiomètre de niveau d'enregistrement.	REC. Dol, L (canal gauche) REC. Dol, R (canal droit)	–13,5dBv	
3		Régler le commutateur de DOLBY NR en position de marche. (DOLBY B)				
4	EN-REGISTRE-MENT/ LECTURE	Enregistrer le signal mentonné plus haut sur la bande d'étalonnage STD-608A et lire ce passage.	VR103 (canal gauche) VR203 (canal droit)	REC. Dol, L (canal gauche) REC. Dol, R (canal droit)	–13,5dBv	
5		Placer le sélecteur de bande (TAPE SELECTOR) en position CrO_2.				

6	EN-REGISTRE-MENT/ LECTURE	Enregistrer le signal mentionné plus haut sur la bande d'étalonnage STD-620 et lire ce passage.	Confirmer	REC. Dol, L (canal gauche) REC. Dol, R (canal droit)	−13,5dBv±1,5dB	
7		Placer le sélecteur de bande (TAPE SELECTOR) en position METAL.				
8	EN-REGISTRE-MENT/ LECTURE	Enregistrer le signal mentionné plus haut sur la bande d'étalonnage STD-610 et lire ce passage.	Confirmer	REC. Dol, L (canal gauche) REC. Dól, R (canal droit)	−13,5dBv±1,5dB	

8. Réglage de réponse en fréquence de lecture et d'enregistrement

No.	Mode	Signal appliqué et bande d'étalonnage	Emplacement du réglage	Emplacement de la borne de mesure	Valeur relevée	Observations
1	ARRÊT	Placer le sélecteur de bande (TAPE SELECTOR) en position NORM.				
2	EN-REGISTRE-MENT/ LECTURE	STD-608A (NORM) NR: Arrêt/marche (OFF/ON) (TYPE B, C)	–	Sortie de ligne (LINE OUT)	La zone autorisée indiquée à la Fig. 11-9 est à satisfaire.	
3		Placer le sélecteur de bande (TAPE SELECTOR) sur la position CrO_2.				
4	EN-REGISTRE-MENT/ LECTURE	STD-620 (CrO_2) NR: Arrêt/mache (OFF/ON) (TYPE B, C)	–	Sortie de ligne (LINE OUT)	La zone autorisée indiquée à la Fig. 11-9 est à satisfaire.	
5	ARRÊT	Placer le sélecteur de bande (TAPE SELECTOR) sur la position METAL.				
6	EN-REGISTRE-MENT/ LECTURE	STD-610 (METAL) NR: Arrêt/marche (OFF/ON) (TYPE B, C)	–	Sortie de ligne (LINE OUT)	La zone autorisée indiquée à la Fig. 11-9 est à satisfaire.	

9. Contrôle de réponse en fréquence du mode de duplication
- Effectuer la lecture après avoir terminé la copie (côté REC/PB).

No.	Mode	Signal appliqué et bande d'étalonnage	Emplacement du réglage	Emplacement de la borne de mesure	Valeur relevée	Observations
1	ARRÊT	Placer le sélecteur de bande (TAPE SELECTOR) en position NORM.				
2	DUPLICATION ET DUPLICATION À GRANDE VITESSE	Charger la bande d'étalonnage STD-331B dans la platine I et la bande d'étalonnage STD-608A dans la platine II.	–	–	Effectuer une copie du signal préenregistré sur la bande STD-331B (à la vitesse normale et la vitesse double).	
3	LECTURE (platine II)	Lire le signal préenregistré de la bande d'étalonnage STD-608A du réglage précédent.	–	Sortie de ligne (LINE OUT)	La zone autorisée indiquée à la Fig. 11-10 doi être satisfaite.	
4	ARRÊT	Placer le sélecteur de bande (TAPE SELECTOR) en position CrO_2.				
5	Charger la bande d'étalonnage STD-620 dans la platine II et refaire les réglages 1 et 2 mentionnés plus haut pour s'assurer que la valeur se trouve dans les limites admissibles représentées sur la figure 11-10.					
6	ARRÊT	Placer le sélecteur de bande (TAPE SELECTOR) en position METAL.				
7	Charger la bande d'étalonnage STD-610 dans la platine II et refaire les réglages 1 et 2 mentionnés plus haut pour s'assurer que la valeur se trouve dans les limites admissibles représentées sur la figure 11-10.					

10. Contrôle de décibelmètre

No.	Mode	Signal appliqué et bande d'étalonnage	Emplacement du réglage	Emplacement de la borne de mesure	Valeur relevée	Observations
1	PAUSE À L'ENREGISTREMENT	Appliquer un signal de 315 Hz/−10dB (316mV) aux bornes d'entrée de ligne (LINE INPUT).	Potentiomètre de niveau d'enregistrement. (REC LEVEL)	REC. Dol, L (canal gauche) REC. Dol, R (canal droit)	S'assurer que les voyants "0dB" des décibelmètres s'allument dans les limites de −13,5 dBv ±2dB du niveau de sortie du signal.	

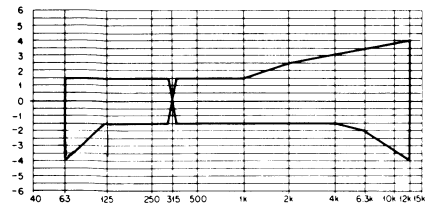
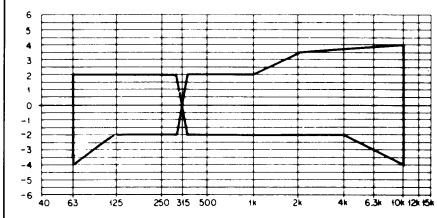
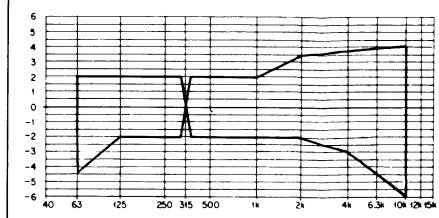
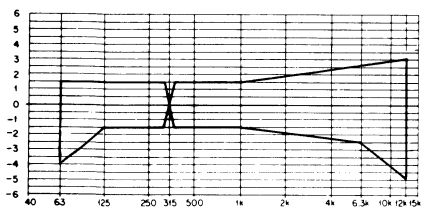
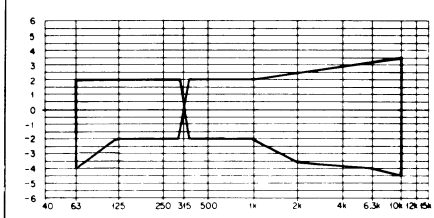
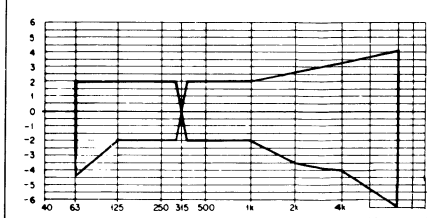
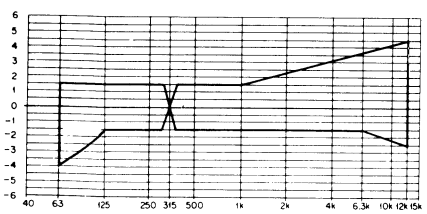
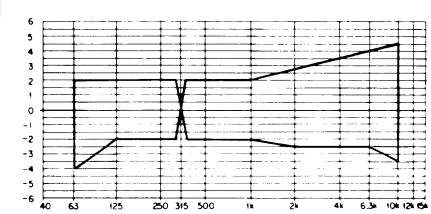
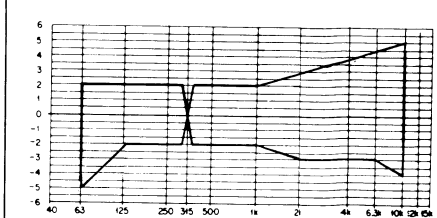
Bande d'étalonnage: STD-608A		
Sélecteur de bande: NORM		
Commutateur DOLBY NR: OFF	Commutateur DOLBY NR type-B: ON	Commutateur DOLBY NR type-C: ON
		
Bande d'étalonnage: STD-620		
Sélecteur de bande: CrO_2		
Commutateur DOLBY NR: OFF	Commutateur DOLBY NR type-B: ON	Commutateur DOLBY NR type-C: ON
		
Bande d'étalonnage: STD-610		
Sélecteur de bande: METAL		
Commutateur DOLBY NR: OFF	Commutateur DOLBY NR type-B: ON	Commutateur DOLBY NR type-C: ON
		

Fig. 11-9 Zone admissible de réponse en fréquence d'enregistrement et de lecture

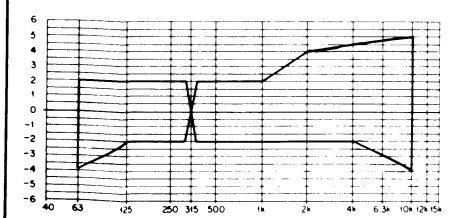
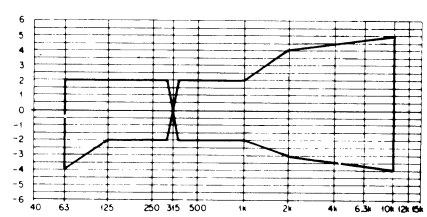
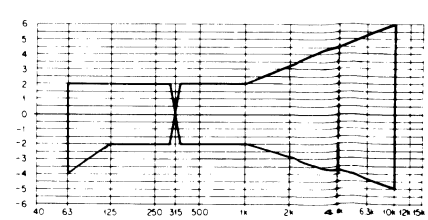
Bande d'étalonnage: STD-608A	Bande d'étalonnage: STD-620	Bande d'étalonnage: STD-610
Sélecteur de bande: NORM	Sélecteur de bande: CrO_2	Sélecteur de bande: METAL
Commutateur DOLBY NR: OFF	Commutateur DOLBY NR: OFF	Commutateur DOLBY NR: OFF
		

Fig. 11-10 Zone admissible de réponse en fréquence d'enregistrement et de lecture de mode de duplication

11. AJUSTES MÉCANICOS

11.1 AJUSTES MECANICOS

Comprobación y ajuste de la amortiguación de la puerta

Ajuste el resorte de la puerta del DECK 1 en la posición (B) como se muestra en la Fig. 11-2. Luego, levante verticalmente el conjunto A del panel frontal como se muestra en la Fig. 11-1. Abra las puertas de los DECK 1 y DECK 2 al mismo tiempo. Entonces, confirme que la diferencia entre el grado de abertura de ambas puertas sea de 17mm como máximo cuando se abre por completo un lado de la puerta. Cuando no se satisfacen estas medidas, cambie la posición de instalación del resorte de la puerta del DECK 1 y efectúe el ajuste del modo siguiente:

- Cuando la acción de abrir la puerta del DECK 1 es más retardada que la del DECK 2: Cambie (B) de la Fig. 11-2 a la de (A).
- Cuando la acción de abrir la puerta del DECK 1 es más rápida que la del DECK 2: Cambie (B) de la Fig. 11-2 a la de (C).

(Deck 1)

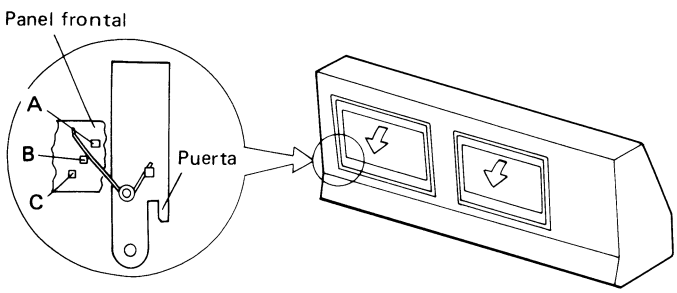


Fig. 11-2

Fig. 11-1

Ajuste de la velocidad de la cinta

1. Coloque la cinta de prueba STD-301 en los DECKs 1 y 2.
2. Cortocircuite los terminales TP.16 (X 2 ADJ) y GND y establezca entonces el DECK 1 en el estado de reproducción (a doble velocidad), y ajuste con VR307 de modo que la frecuencia pase a ser 6000Hz±10Hz.
3. Detenga la operación del DECK 1 y establezca entonces el DECK 2 en el estado de reproducción (PLAY) (a doble velocidad), y ajuste el VR304 de modo que la frecuencia sea de ±10 Hz con relación a la del DECK 1.
4. Después de desconectar el cortocircuito mencionado en el paso 2, establezca el DECK 1 en el estado de reproducción (PLAY) a velocidad normal, y ajuste el VR306 de modo que la frecuencia sea de 3000Hz±5Hz.
5. Detenga la operación del DECK 1 y establezca entonces el DECK 2 en el estado de reproducción (PLAY) a velocidad normal, y ajuste el VR305 de modo que la frecuencia sea de ±5Hz con relación a la del DECK 1.

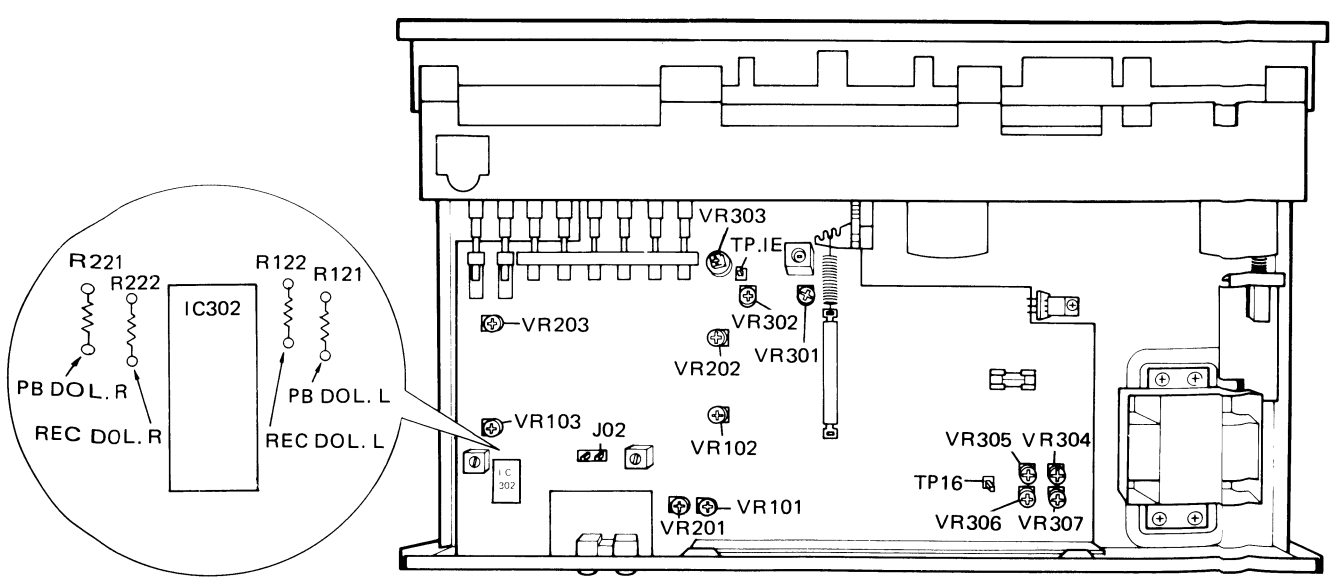


Fig. 11-3 Ajuste de la velocidad de la cinta

Ajuste de la carrera del selector deslizante de grabación/reproducción (confirmación de generación de ruido cuando se pasa de REC → STOP)

Mientras coloca la cinta STD-605A en el DECK 2, confirme si genera o no ruido cuando se establece en el modo de parada (STOP) desde el de grabación (REC).

En el caso de generarse ruido, reemplace el muelle de conexión del interruptor (SW) poniéndolo como se muestra en la figura 11-4. (Cerciórese de que el selector deslizante esté totalmente empujado durante el estado REC, y que haya vuelto completamente durante el estado STOP.)

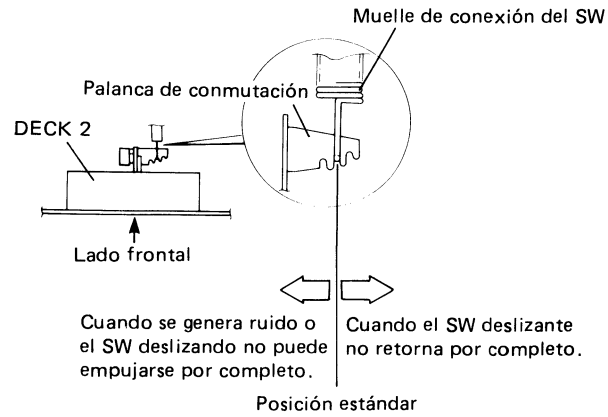

Muelle de conexión del SW
Palanca de conmutación
DECK 2
Lado frontal
Cuando se genera ruido o el SW deslizando no puede empujarse por completo.
Cuando el SW deslizante no retorna por completo.
Posición estándar

Fig. 11-4 Ajuste de la carrera del selector deslizante de grabación/reproducción (confirmación de generación de ruido cuando se pasa de REC → STOP)

11.2 AJUSTES ELECTRICOS

Condiciones para el ajuste

1. Los ajustes mecánicos deben terminarse primero.
2. El cabezal debe limpiarse y desimanarse.
3. Deje el deck por unos minutos antes iniciar los ajustes eléctricos.
4. La señal de referencia es de 0dBv=1Vrms.
5. Conecte una resistencia de carga de 50 kilo-ohmios (o entre 47 y 52 kilo-ohmios) a los terminales de salida.
6. A menos que se espefique de otra manera, los siguientes interruptores se dejan en las posiciones indicadas.
   Interruptor DOLBY NR : OFF
   TAPE SELECTOR : NORM
   (SELECTOR DE CINTA)

Cintas de prueba

STD-331B : Ajustes de reproducción (Véase la Fig. 11-5)
STD-608A : Cinta en blanco NORMAL
STD-620 : Cinta en blanco CrO_2
STD-610 : Cinta en blanco METAL

Lista de ajustes

Deck I

1. Ajuste azimutal de la cabeza.
2. Comprobación de la respuesta en frecuencia de reproducción.
3. Ajuste del nivel de reproducción.
4. Inspección de conmutación constante del tiempo de reproducción.

Deck II

1. Ajuste azimutal de la cabeza.
2. Comprobación de la respuesta en frecuencia de reproducción.
3. Ajuste del nivel de reproducción.
4. Inspección de conmutación constante del tiempo de reproducción.
5. Ajuste de la corriente de borrado.
6. Ajuste de la polarización de grabación.
7. Ajuste del nivel de grabación.
8. Comprobación de la respuesta en frecuencia de grabación y reproducción.
9. Inspección de la respuesta en frecuencia en el modo de copia.
10. Comprobación del medidor de nivel.

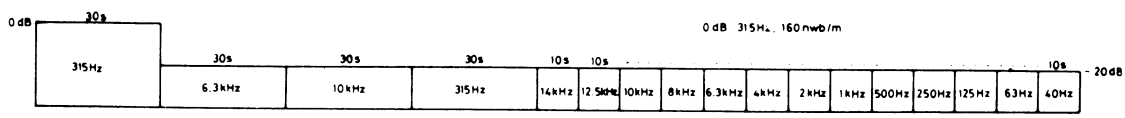
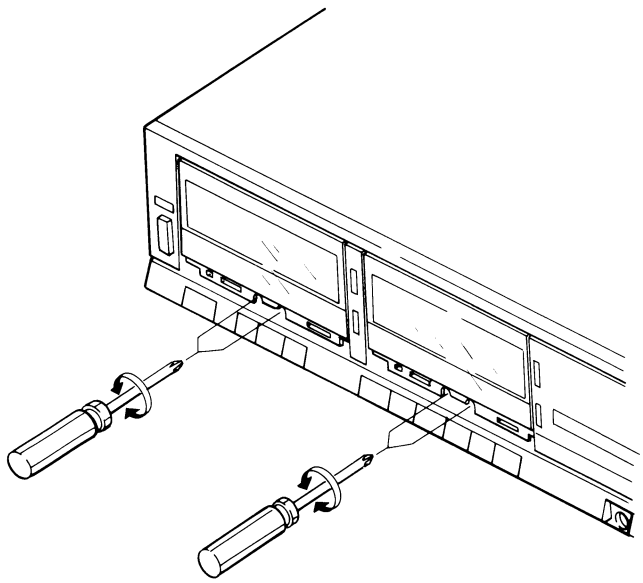


Fig. 11-5 Contenido de la cinta de prueba STD-331B



NOTA:
Al realizar el ajuste del ángulo de la cabeza, abra la puerta, deslice la placa de la puerta hacia la derecha y saque la placa.
Después de esto, ajuste el ángulo de la cabeza.

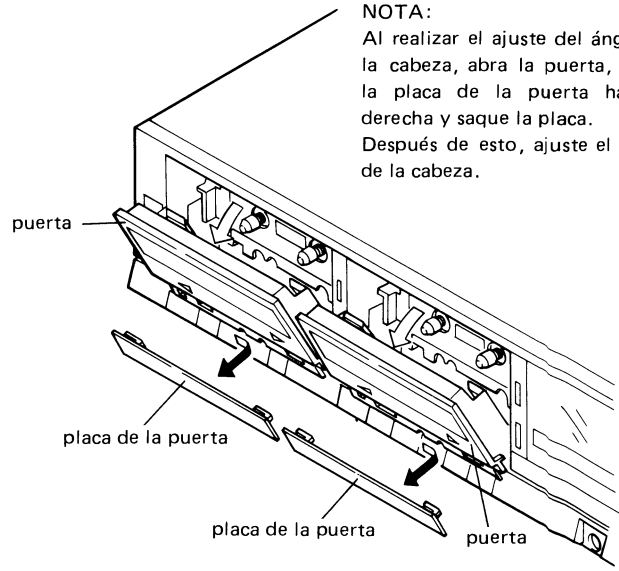


Fig. 11-6 Ajuste azimutal del cabeza

Cinta de prueba	STD-331B
Selector de cinta	NORM
Interruptor DOLBY NR	OFF

- Debido al "efecto del borde", compense el canal derecho a −1dB a 63Hz.

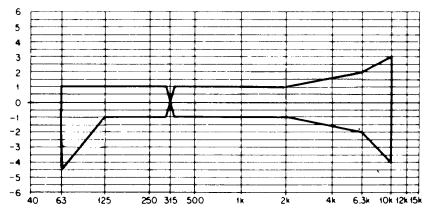


Fig. 11-7 Zona de respuesta en frecuencia de reproducción permisible

Deck I

1. Ajuste azimutal de la cabeza
- Gire el VR101 y VR201 a la posición del centro mecánico.

No	Modo	Señal de entrada y cinta de prueba	Punto de ajuste	Punto de medición	Valor de ajuste	Observaciones
1	Reproducción "PLAY"	Reproduzca la porción de 10kHz/–20dB de la cinta de prueba STD-331B.	Tornillo de ajuste azimutal de la cabeza. (FWD, REV) (Vésse la Fig. 11-6).	Salida de línea (LINE OUT)	Máximo nivel de señal de reproducción.	
2	Parada "STOP"	Trabe el tornillo con el compuesto "screw lock" al término del ajuste.				

2. Comprobación de la respuesta en frecuencia de reproducción

No	Modo	Señal de entrada y cinta de prueba	Punto de ajuste	Posición de medición	Valor de ajuste	Observaciones
1	Reproducción "PLAY"	STD-331B	–	Salida de línea (LINE OUT)	Debe satisfacerse la zona permisible mostrada en la Fig. 11-7.	

3. Ajuste del nivel de reproducción
- Este ajuste determina el nivel de DOLBY NR, y debe efectuarse con cuidado.

No	Modo	Señal de entrada y cinta de prueba	Punto de ajuste	Punto de medición	Valor de ajuste	Observaciones
1	Reproducción "PLAY"	Reproduzca la porción de 315Hz/0dB de la cinta de prueba STD-331B.	VR101 (Canal izquierdo) VR201 (Canal derecho)	PB (Repr.) DOL.L (Izq.) PB (Repr.) DOL.R (Der.)	–13,5dBv	

4. Comprobación de la conmutación constante de tiempo de reproducción
- Establezca el deck en el modo de reproducción sin haber insertado ningún casete.

- Compruebe que el nivel de ruido cambia en los terminales de salida de línea de reproducción cuando se cambia la posición del selector de cintas (TAPE SELECTOR).

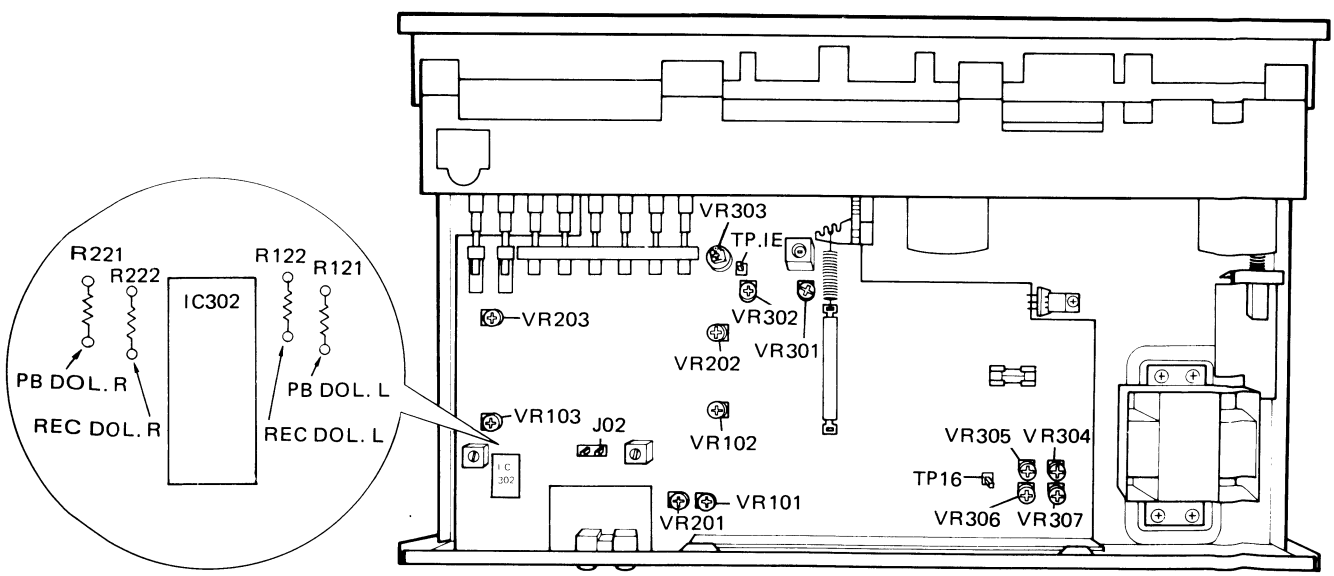


Fig. 11-8 Lugares de ajuste

Deck II

1. Ajuste azimutal de la cabeza

- Gire el VR101 y VR201 a la posición del centro mecánico.

No	Modo	Señal de entrada y cinta de prueba	Punto de ajuste	Punto de medición	Valor de ajuste	Observaciones
1	Reproducción "PLAY"	Reproduzca la porción de 10kHz/–20dB de la cinta de prueba STD-331B.	Tornillo de ajuste azimutal de la cabeza. (FWD, REV) (Vésse la Fig. 11-6).	Salida de línea (LINE OUT)	Máximo nivel de señal de reproducción.	
2	Parada "STOP"	Trabe el tornillo con el compuesto "screw lock" al término del ajuste.				

2. Comprobación de la respuesta en frecuencia de reproducción.

No	Modo	Señal de entrada y cinta de prueba	Punto de ajuste	Punto de medición	Valor de ajuste	Observaciones
1	Reproducción "PLAY"	STD-331B	–	Salida de línea (LINE OUT)	Debe satisfacerse la zona permisible mostrada en la Fig. 11-7.	

3. Ajuste del nivel de reproducción

- Este ajuste determina el nivel de DOLBY NR, y debe efectuarse còn cuidado.

No	Modo	Señal de entrada y cinta de prueba	Punto de ajuste	Punto de medición	Valor de ajuste	Observaciones
1	Reproducción "PLAY"	Reproduzca la porción de 315Hz/0dB de la cinta de prueba STD-331B.	VR102 (Canal izquierdo) VR202 (Canal derecho)	PB (Repr.) DOL.L (Izq.) PB (Repr.) DOL.R (Der.)	–13.5dBv	

4. Comprobación de la conmutación constante de tiempo de reproducción

- Establezca el deck en el modo de reproducción sin haber insertado ningún casete.
- Compruebe que el nivel de ruido cambia en los terminales de salida de línea de reproducción cuando se cambia la posición del selector de cintas (TAPE SELECTOR.)

5. Ajuste de la corriente de borrado

No	Modo	Señal de entrada y cinta de prueba	Punto de ajuste	Punto de medición	Valor de ajuste	Observaciones
1	Grabación/ reproducción "REC/ PLAY"	Coloque la cinta de prueba estándar STA-610 sin aplicar ninguna señal de entrada.	VR303	TP.IE	180mV AC	(FWD)

6. Ajuste de la polarización de grabación

- Después del ajuste, compruebe la distorsión y tenga cuidado en que no caiga por debajo de la polarización.

No	Modo	Señal de entrada y cinta de prueba	Punto de ajuste	Posición de medición	Valor de ajuste	Observaciones
1	Parada "STOP"	Regule el interruptor selector de cinta "TAPE SELECTOR" a la posición NORM.				
2	Grabación "REC"	STD-608A (NORM) –20dB (grabación)	VR301 (Canal izquierdo) VR302 (Canal derecho)	Salida de línea (LINE OUT)	+1,0dB±0,5dB (6,3k/315Hz)	

7. Ajuste del nivel de grabación

No	Modo	Señal de entrada y cinta de prueba	Punto de ajuste	Punto de medición	Valor de ajuste	Observaciones
1	Parada "STOP"	Regule el interruptor selector de cinta "TAPE SELECTOR" a la posición NORM.				
2	Grabación-pausa (REC-PAUSE)	Aplique una señal de 315Hz/–10dBv (316mV) a los terminales de entrada de línea (LINE INPUT).	Control del nivel de grabación (REC LEVEL).	REC (Grab.) DOL. L (Izq.) REC (Grab.) DOL. R (Der.)	–13,5dBv	
3		Regule el interruptor DOLBY NR a la posición ON. (DOLBY B)				
4	Grabación/ reproducción "REC/ PLAY"	Grabe el nivel de señal arriba mencionado en la cinta de prueba STD-608A y reproduzca.	VR103 (Canal izquierdo) VR203 (Canal derecho)	REC (Grab.) DOL.L (Izq.) REC (Grab.) DOL.R (Der.)	–13,5dBv	
5		Regule el interruptor selector de cinta "TAPE SELECTOR" a la posición CrO_2.				

6	Grabación/ reproducción "REC/PLAY"	Grabe la señal arriba mencionada en la cinta de prueba STD-620, y reprodúzcala.	Confirme	REC (Grab.) DOL.L (Izq.) REC (Grab.) DOL.R (Der.)	−13,5dBv±1,5dBv	
7		Regule el interruptor selector de cinta "TAPE SELECTOR" a la posición METAL.				
8	Grabación/ reproducción "REC/PLAY"	Grabe la señal arriba mencionada en la cinta de prueba STD-610 y reprodúzcala.	Confirme	REC (Grab.) DOL.L (Izq.) REC (Grab.) DOL'R (Der.)	−13,5dBv±1,5dBv	

8. Ajuste de la respuesta de grabación y reproducción

No	Modo	Señal de entrada y cinta de prueba	Punto de ajuste	Punto de medición	Valor de ajuste	Observaciones
1	Parada "STOP"	Regule el interruptor selector de cinta "TAPE SELECTOR" a la posición NORM.				
2	Grabación reproducción "REC/ PLAY"	STD-608A (NORM) NR: OFF/ON (TIPOS B, C)	–	Salida de línea (LINE OUT)	Debe satisfacerse la zona permisible mostrada en la Fig. 11-9.	
3	Parada	Ponga el selector TAPE SELECTOR en la posición CrO_2.				
4	Grabación reproducción "REC/ PLAY"	STD-620 (CrO_2) NR: OFF/ON (TIPOS B, C)	–	Salida de línea (LINE OUT)	Debe satisfacerse la zona permisible mostrada en la Fig. 11-9.	
5	Parada "STOP"	Ponga el selector TAPE SELECTOR en la posición METAL.				
6	Grabación/ reproducción "REC/ PLAY"	STD-610 (METAL) NR: OFF/ON (TIPOS B, C)	–	Salida de línea (LINE OUT)	Debe satisfacerse la zona, permisible mostrada en la Fig. 11-9.	

9. Inspección de la respuesta de frecuencia en el modo de copia
• Después del copiado, efectúe la reproducción (lado de Grab./Repr.)

No	Modo	Señal de entrada y cinta de prueba	Punto de ajuste	Punto de medición	Valor de ajuste	Observaciones
1	Parada "STOP"	Regule el interruptor selector de cinta "TAPE SELECTOR" a la posición NORM.				
2	COPIA Y COPIA DE ALTA VELOCIDAD	Coloque la cinta de prueba STD-331B en el deck I y la cinta de prueba STD-608A en el deck II.	–	–	Copie la señal grabada de la cinta de prueba STD-331B (en la velocidad normal y doble).	
3	Reproducción "PLAY" (Deck II)	Reproduzca la señal grabada en la cinta de prueba STD-608A en el procedimiento de ajuste anterior.	–	Salida de línea (LINE OUT)	Debe estar de acuerdo con la zona permisible mostrada en la Fig. 11-10.	
4	Parada "STOP"	Regule el interruptor selector de cinta "TAPE SELECTOR" a la posición CrO_2.				
5	Coloque la cinta de prueba STD-620 en el deck II, y repita los procedimientos 1 y 2 para confirmar que está de acuerdo con la zona permisible mostrada en la Fig. 11-10.					
6	Parada "STOP"	Regule el interruptor selector de cinta "TAPE SELECTOR" a la posición METAL.				
7	Coloque la cinta de prueba STD-610 en el deck II, y repita los procedimientos 1 y 2 para confirmar que está de acuerdo con la zona permisible mostrada en la Fig. 11-10.					

10. Inspección del indicador de nivel

	Modo	Señal de entrada y cinta de prueba	Punto de ajuste	Punto de medición	Valor de ajuste	Observaciones
1	Grabación/ pausa "REC/ PAUSE"	Aplique una señal de 315 Hz/−10dBv (316mV) a los terminales de entrada de línea "LINE INPUT".	Control del nivel de grabación "REC LEVEL".	REC (Grab.) DOL, L (Izq.) REC (Grab.) DOL, R (Der.)	Confirme que los indicadores de nivel "0dB" se encienden dentro de −13,5dBv±2dB del nivel de salida de señal.	

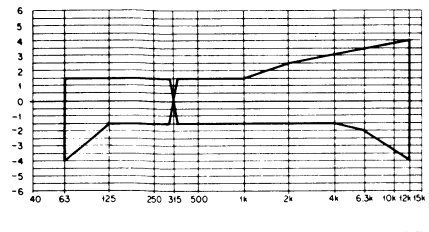
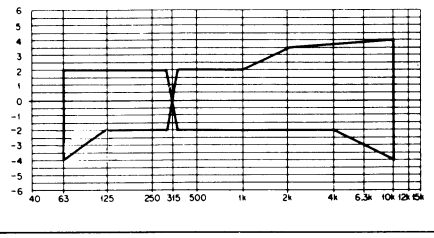
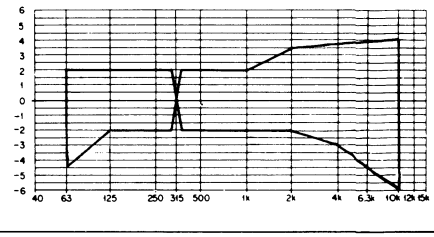
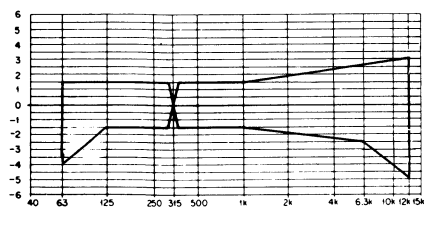
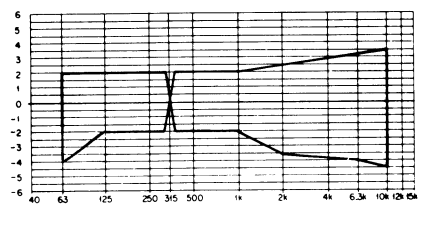
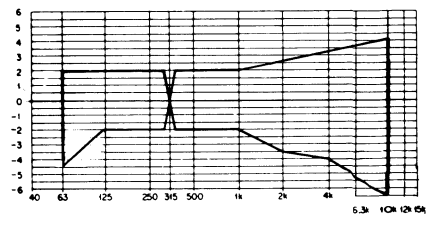
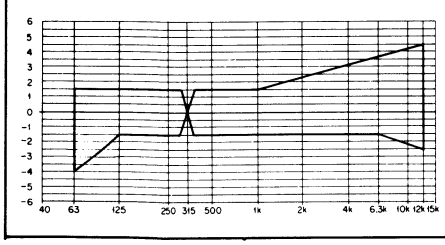
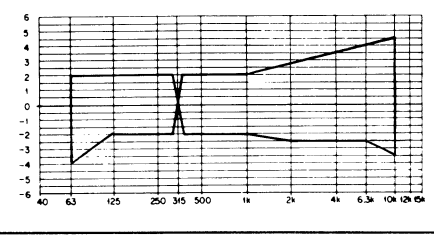
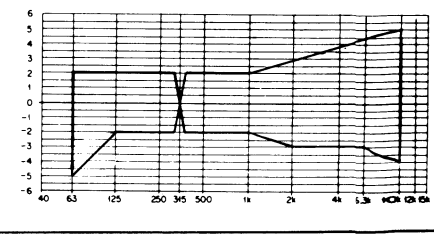
Cinta de prueba: STD-608A		
SELECTOR DE CINTA: NORM		
DOLBY NR: OFF	DOLBY NR: TIPO B en ON	DOLBY NR: TIPO C en ON
		
Cinta de prueba: STD-620		
SELECTOR DE CINTA: CrO_2		
DOLBY NR: OFF	DOLBY NR: TIPO B en ON	DOLBY NR: TIPO C en ON
		
Cinta de prueba: STD-610		
SELECTOR DE CINTA: METAL		
DOLBY NR: OFF	DOLBY NR: TIPO B en ON	DOLBY NR: TIPO C en ON
		

Fig. 11-9 Zona de respuesta en frecuencia de grabación y reproducción permisible

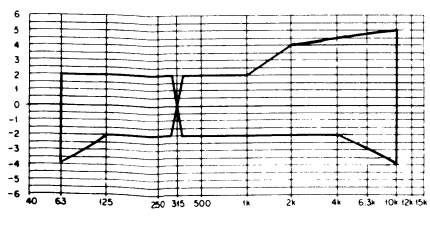
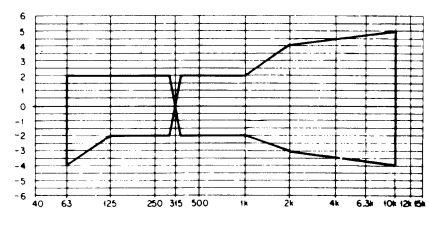
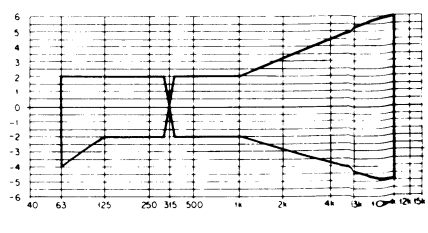
Cinta de prueba: STD-608A	Cinta de prueba: STD-620	Cinta de prueba: STD-610
SELECTOR DE CINTA: NORM	SELECTOR DE CINTA: CrO_2	SELECTOR DE CINTA: METAL
DOLBY NR: OFF	DOLBY NR: OFF	DOLBY NR: OFF
		

Fig. 11-10 Zona de respuesta en frecuencia de grabación y reproducción permisible en el modo de copia